THE BUILDING REVIEW

VOL. XXIII FEBRUARY, 1923 No. 2

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Published Monthly by the Building Review Company,
50 Main Street, San Francisco, California
Douglas Building Los Angeles, California

Yearly subscription—United States, $2.50—foreign, $3.00. Single copies, 25 cents.

Entered as second-class matter in the San Francisco Postoffice under the Act of August 24, 1912. Previously entered as "The Architect."

The editors will be pleased to consider contributions of interest to the Industry. When payment of same is desired, this fact should be stated.

News stands and dealers supplied through San Francisco News Co., San Francisco, Calif., or American News Co., New York, N. Y.

McKINLEY SCHOOL, SANTA MONICA, CAL. ALLISON & ALLISON, ARCHITECTS

FROM the days of the "Little Red School House" to the modern and beautiful architectural conceptions of school edifices today, such as the outstanding work of Allison & Allison, is a story as romantic as any ever told of the progress of our nation. These Temples of Learning, equipped with every facility for the dissemination and advancement of knowledge and representing the expenditure of millions of dollars are a happy prophecy of what the future holds in store for us. ¶ The perpetuity of these institutions is the concern of us all. ¶ The preservation of these buildings against the ravages of time and the elements is our particular concern. "Saving the Surface" with paint and varnish and adding beauty with the magic of color has been our work for nearly 40 years and today we are engaged in that task on a larger scale than ever before. ¶ We are glad to be listed among those who are translating into reality the great architectural conceptions of Allison & Allison.

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SAN FRANCISCO LOS ANGELES

The
BUILDING REVIEW

VOL. XXIII SAN FRANCISCO, FEBRUARY, 1923 No. 2

GRAMMAR SCHOOL.
OXNARD, CALIFORNIA.

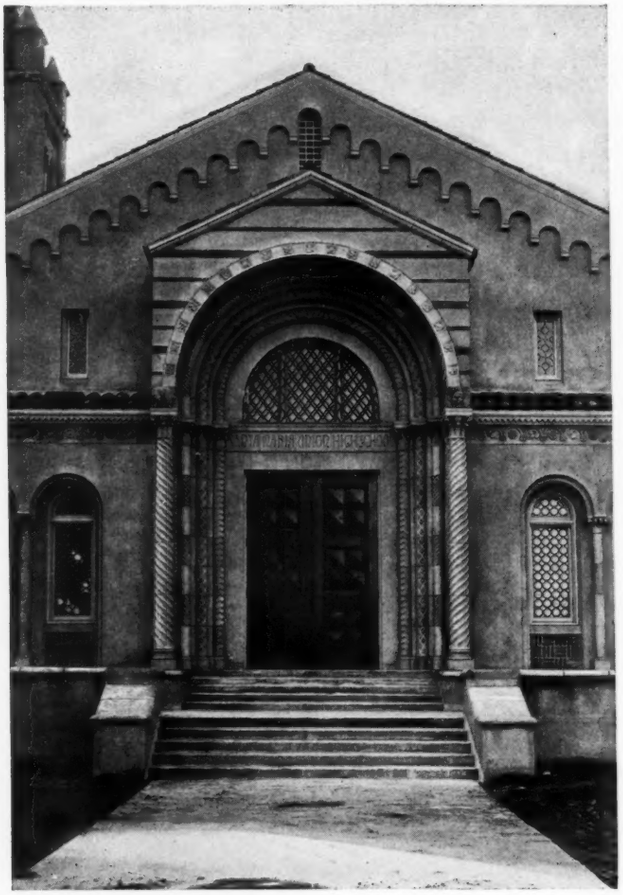
ALLISON & ALLISON, ARCHITECTS

The Work of Allison & Allison, Architects

By IRVING F. MORROW*

At the mention of Allison and Allison one thinks of schools. This is a tribute, when there are so many successful architects whose names evoke nothing more specific than a vague sense of voluminous but indefinable output. To have one's name suggest a definite achievement is in itself an achievement. But it is also here a misfortune. Architects with a lively feeling for architectural realities, a personal and versatile sense of design, and a proved capacity for handling large undertakings, deserve freer scope than can be afforded by any one line of work. Nor should such a restriction be necessary. There are fields of human activity where specialization in one degree or another is the only alter-

*Member of the firm of Morrow & Garren, Architects.



UNION HIGH SCHOOL,
SANTA MONICA, CALIFORNIA.

native to an ineffectual dissipation of resources or powers. It does not follow that every corner of the field of knowledge which can be independantly named is a necessary, or even a reasonable subject of specialization. Specialization is a restriction of vision and interest, which is unquestionably an evil, however inevitable it may become in many situations. Specialties are only properly circumscribed by the limits of human capacity. A subject whose complexity exacts all the attention of which a mind is capable precludes activity in other fields. Now it is not plausibly arguable that the complications and detailed exactions of schoolhouse design are of such formidable volume or intricacy as to incapacitate a well trained architect from mastering them and giving serious attention to other phases of building to boot. Indeed, as much might be said for any and every other sub-head embraced within architectural practice. Where any thoroughgoing specialization exists it is chargeable either to unfortunate circumstances or to flagging initiative and curiosity. In other words, architects specialize either under pressure of business necessity or from spiritual indolence. The latter is unthinkable in the present case. A public which limits Allison and Allison to the designing of schools is itself the loser. Their abilities are of a kind which should be given freest scope and the most varied application.

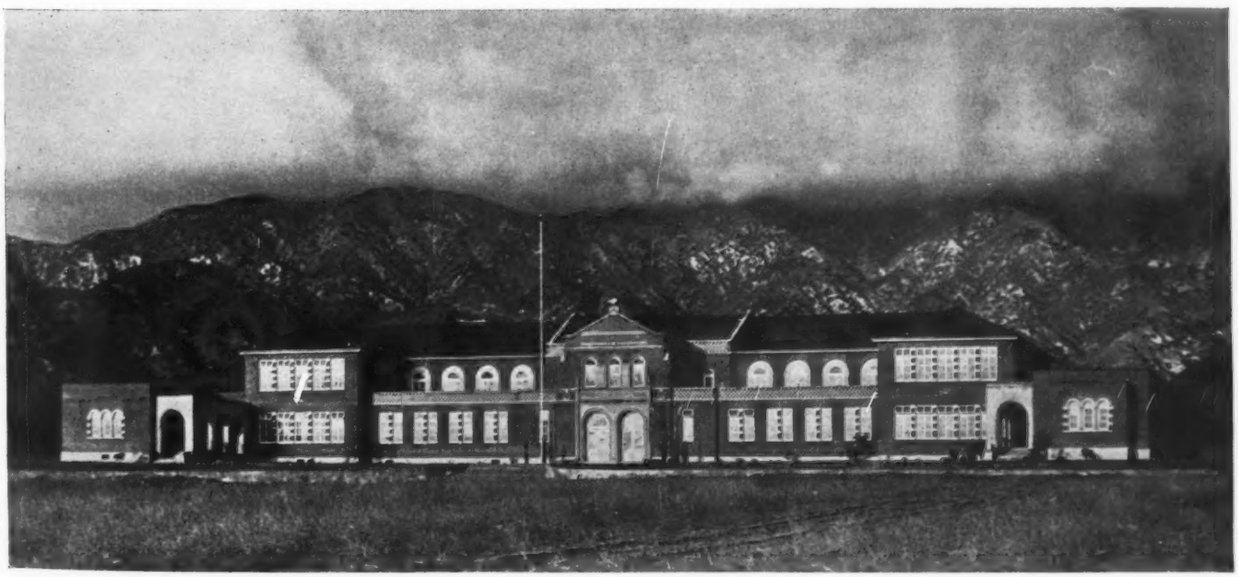
It is not to be questioned that school designing deserves the highest of trained intelligence, nor that they have rendered exceptional service in this field. Nor is it to be denied that their unusual experience in this line is a tangible and valuable aid to the work. The mistake is in assuming that they produce good schools by virtue of this experience only, rather than through careful reasoning, analysis, and vision. One has but to recall that the Santa Monica High School, produced almost at the outset of their career in Los Angeles, still remains one of its high points. This does not mean subsequent stagnation. On the contrary, they have exhibited unfailing resources, adaptability, versatility, creative imagination.

UNIVERSITY OF CALIFORNIA, (SOUTHERN BRANCH) LOS ANGELES, CALIFORNIA.

They have blown a gust of fresh air through the musty precincts of educational design. They have applied the findings of the experts with ample grains of sense, common and artistic. They have accomplished as much as—it might reasonably be said more than—any architects in the country to redeem the practice of school architecture from the appearance of a conspiracy in restraint of design. The human side of school structures has been amply safe in their hands, and the educational factory has been ruled out.

Their school experience has been remarkably wide, and the output is remarkably varied. For all that their work is readily recognizable, there is no stereotyping of schemes or mannerisms. Even the well known and used plans are handled with freedom and individuality. The center element and end pavilion type has been given a variety of expressions. More conspicuous success has been obtained with U court schemes, as notably in the exquisitely lovely elementary school at Glendora. Their most significant contributions have been the irregular, freely developed plans, such as the High Schools at Palo Alto and Santa Maria. These are certainly to be regarded as two more high points of their career. This type of school planning is significant because it stresses oft-neglected dynamic human aspects and minimizes the stifling formality of organization. Their handling of it is conclusive evidence that arbitrary regularity is not essential to order and efficiency. Symmetry is not the sole manifestation of order; it is only the most obvious one and hence the easiest to attain. There are occasions aplenty when a spurious outward symmetry cramps and does violence to inner needs for a freer type of order. Nor must it be forgotten that schools are to house childhood and youth, which are times of sensitiveness, quest, high hopes and great imaginings. It is hard to believe that the tentatives of development

JEFFERSON JUNIOR HIGH SCHOOL,
LONG BEACH, CALIFORNIA.

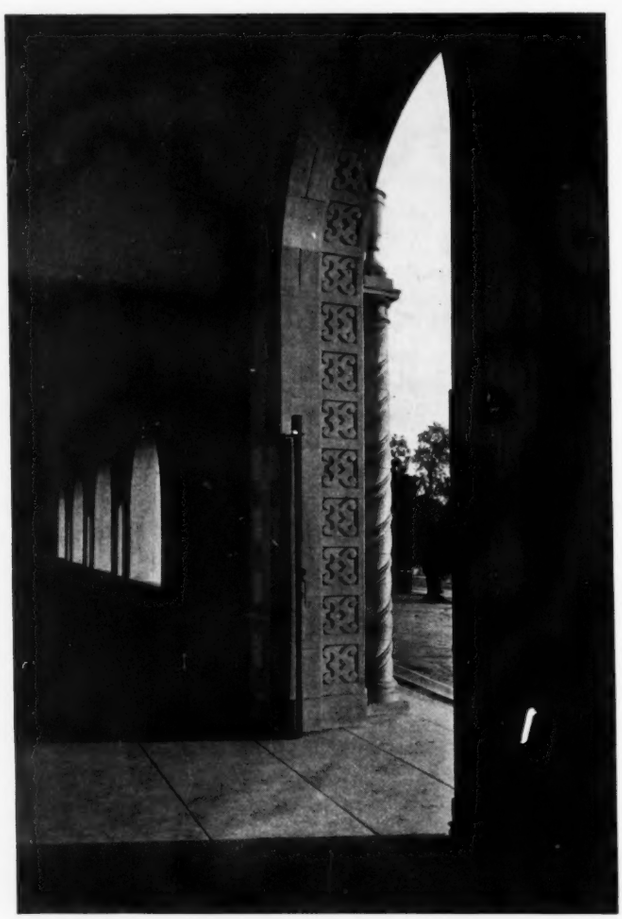


BURBANK HIGH SCHOOL, BURBANK, CALIFORNIA.

have not freer play in such mobile surroundings than in the educational factory. These considerations apply as well as to the group schemes, such as Whittier College, and the admirable Southern Branch of the University of California.

A touch of romance in the architectural handling also pervades the best and most characteristic of their work. Their natural bent is in favor of the more informal types of design, those styles which are unfinished, historically speaking, and which consequently leave ampler room for the play for a personal imagination. Phases of the Romanesque of northern Italy have won their habitual preference and furnished their happiest inspiration. Elements from the earlier, more naive phases of the Renaissance have often been mingled with this earlier feeling, and given piquant, unsophisticated turns to bring them into line. Their outstanding examples of the Romanesque inspiration are the High Schools at Santa Monica, Palo Alto, and Santa Maria, and the Southern Branch of the University of California (originally built as the Los Angeles State Normal School). All of these are masterly designs; no more meritorious as compositions, perhaps, than many a smaller structure which might be cited, but more conspicuous by virtue of their greater size and consequent impressiveness. They are clear, orderly, well poised, amply diversified, picturesque in the best sense of the word. They are also modern in spirit. Use of the word Romanesque in this connection must not be taken to imply subservience to archaeological proprieties. Precedents have not been ostentatiously shunned, but they have been used creatively. There is much in their work which may shock the theoretical purist; but then, why should one go out of the way to avoid shocking a purist? Their ideal has not been the sterile one of historical consistency, which is a mere matter of scholarship, but a rational eclecticism, spiritual consistency, which is creative.

CENTRAL MOTIF,
UNION HIGH SCHOOL, MERCED, CALIFORNIA.



LOGGIA,
ELEMENTARY SCHOOL, BURBANK, CALIFORNIA.

If the human and architectural aspects of their schools have been stressed to the ap-

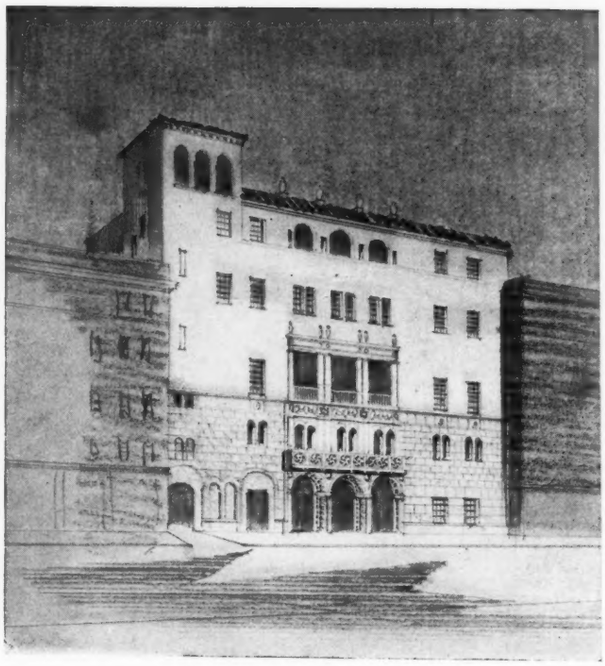
ELEVATOR HALL,
UNIVERSITY CLUB, LOS ANGELES, CALIFORNIA.

parent exclusion of technical considerations, it is neither because the buildings are deficient on this score, nor because this aspect of the matter is unimportant. It should and generally does go without saying that a first class school must meet exacting practical requirements in more than merely passable fashion. It should also, but by no means always does, go without saying that analogous human obligations are equally imperative. In other words, while the technical point of view is in no lack of able and aggressive champions, the spiritual case is in danger of being allowed to go by default.

More recently Allison and Allison have been enjoying opportunities for other types of work with increasing frequency. They have shown examples of residences, hospitals, industrial buildings, commercial buildings, churches and clubs. All of these evidence the same analytical attack, the same scrupulous respect for requirements, the same creative imagination and the same vigorous self-criticism for which their educational work has previously been notable. Each new essay emphasizes the point that a too specialized application of their abilities has meant the public's loss. One of the loveliest of their non-educational works is the recent open air theater on the grounds of the Santa Monica High School. This is a striking and instructive example of an old and almost stereotyped problem envisaged in a fresh manner, as well as of old materials put to novel but happy uses. The idea that an open-air theater is Greek is a preconception so ingrained that few people could have been found to entertain the possibility of a Romanesque Greek theater. With a slight brush at the cobwebs they have given us a thing of great beauty, a work richly meriting the overworked popular appelation of "gem", veritably lyrical in quality.

Their most significant recent contributions

LOGGIA OFF MAIN DINING ROOM,
UNIVERSITY CLUB. LOS ANGELES, CALIFORNIA.



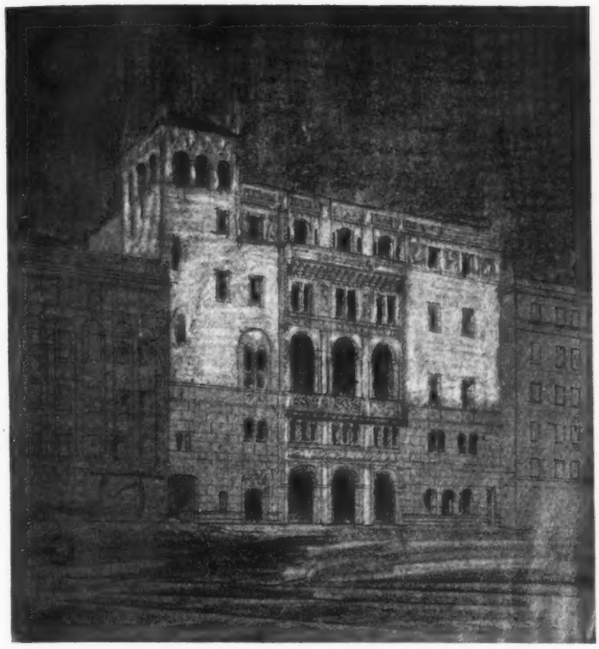
PRELIMINARY SKETCH,
FRIDAY MORNING CLUB, LOS ANGELES, CALIFORNIA.

PRELIMINARY SKETCH,
FRIDAY MORNING CLUB, LOS ANGELES, CALIFORNIA.

are two Los Angeles clubs. Of the Friday Morning Club, which exists as yet only on paper, it is still too soon to write in any detail. Suffice it to say that the design is one of quiet distinction and holds great promise.

The University Club of Los Angeles is not only one of the outstanding achievements of its architects' career; it is one of the most substantial additions to our architectural heritage which has been made for some years past. It is a building deserving the closest analysis, although anything like an adequately full treatment is obviously impossible in the present connection. It would be an unpardonable oversight, however, to leave the subject without calling particular attention to two salient aspects. The use of the lot—in other words, the fundamental conception and composition of the scheme, the "parti"—is an impressive example of close-knit, logical, creative architectural thinking. Few observers, lay or architectural, above all those who are by native bent or habit predisposed to the honorific amenities of the classical tradition, will fail to grant enthusiastic credit for the manner in which a large and varied amount of material is naturally and decently disposed within a limited space. Strict economy has been found —or made—compatible with spaciousness and airiness, inside and out. Clarity and order co-exist with romantic picturesqueness and absence of formality. The plan is firmly knit but generous and free; the section line is conceived in a large continuity and modulated with delightful subtlety. No less noteworthy than the "reality" of the conception is the reality of the material handling. That dualism of masked structure and furred finish which pervades contemporary architecture to the point of inciting (and doubtless warranting) charges of sham has to a striking degree been eliminated. What is in effect a concrete structure has been embraced as an opportunity for designing a concrete building. Exterior and interior are thus invested with a comfortable and satisfying sense of substance and durability—in a word, with reality. The building is quiet, poised, hospitable, powerful with no suggestion of arrogance. And from these broader generalities which have been emphasized, down to its smallest details of form, color and furnishing, it has been the object of unfaltering and consistent attention.

It has manifestly been impossible in the face of so large and homogeneous a body of work to pass individual comment on every item. A



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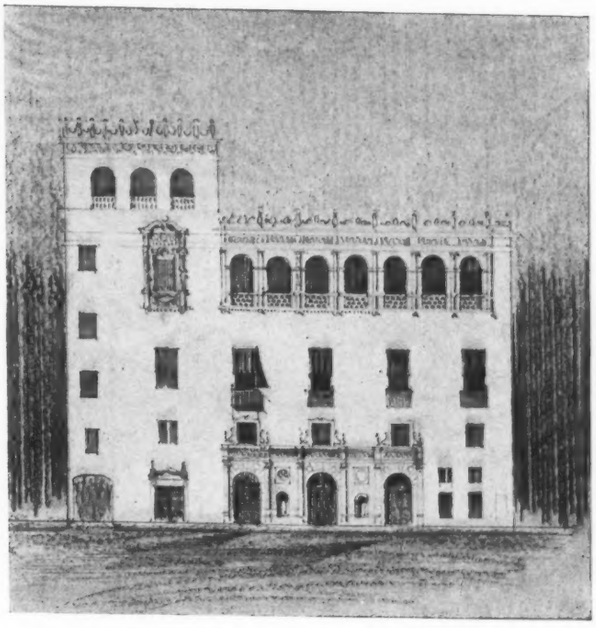
FRIDAY MORNING CLUB, LOS ANGELES, CALIFORNIA.



PRELIMINARY SKETCH,
FRIDAY MORNING CLUB, LOS ANGELES, CALIFORNIA.

length catalogue would result. It has scarcely been possible to touch upon all the outstanding examples. Rich work is doubtless yet in store, and there is satisfaction in feeling that it promises to be of a wider range, more fully representative of the larger services a community should exact from its architects, and more consonant with their demonstrated ability. As this work increases in variety there will undoubtedly always be those who, according to native bent, will incline to see in Allison and Allison school specialists, or commercial specialists, or club specialists, or exponents of sundry other so-called specialties which modern requirements seem to make feasible. The person who envisages the field of architecture seriously and critically in its entirety will prefer to know them simply as Architects.

A Glimpse Into the Future

By JOHN J. DONOVAN, *Architect*
Author of "School Architecture"

THIS splendid issue illustrating the excellent work of Allison & Allison, Architects, who are responsible for so many delightful landmarks throughout the State of California, leads one not only to reflect upon the immediate achievements of the past, but to draw the curtains of the future aside and to look out upon the possibilities of times soon to come.

California's population today is close to four millions of people, 3,462,861, according to the census of 1920. California's population in 1935 will be ten millions of people, if the estimate of so conservative a man as Julius Kahn, who knows California as well as any of the present generation, holds good. Other predictors, including no less a prophet than Arthur Brisbane, have estimated the growth of California's population far in excess of Mr. Kahn's figure. However, for our purposes, we will attribute these forecasts to the inspirational glow of the California sunsets, or the invigorating warmth of her hospitality, and will admit only the colder and more conservative statements for our consideration here.

Ten million people in twelve years—a period immediately at hand—means an increase of more than two and one-half times the present population. Now notice:

California's school enrollment for the school year 1921-22 was:

For the kindergarten	40,131
For the elementary school	571,678
For the high school	227,190
For the private schools	46,659
For colleges and universities	20,983
For teachers' colleges	6,505
Making a total of	913,146

The astonishing conclusion from this complication is that almost one-quarter of the present population of the State of California is at school.

Editor's Note: Dr. Hart and Professor Peterson are associated with Mr. Donovan as educational experts in rendering service as consultant to Boards of Education and their architects.

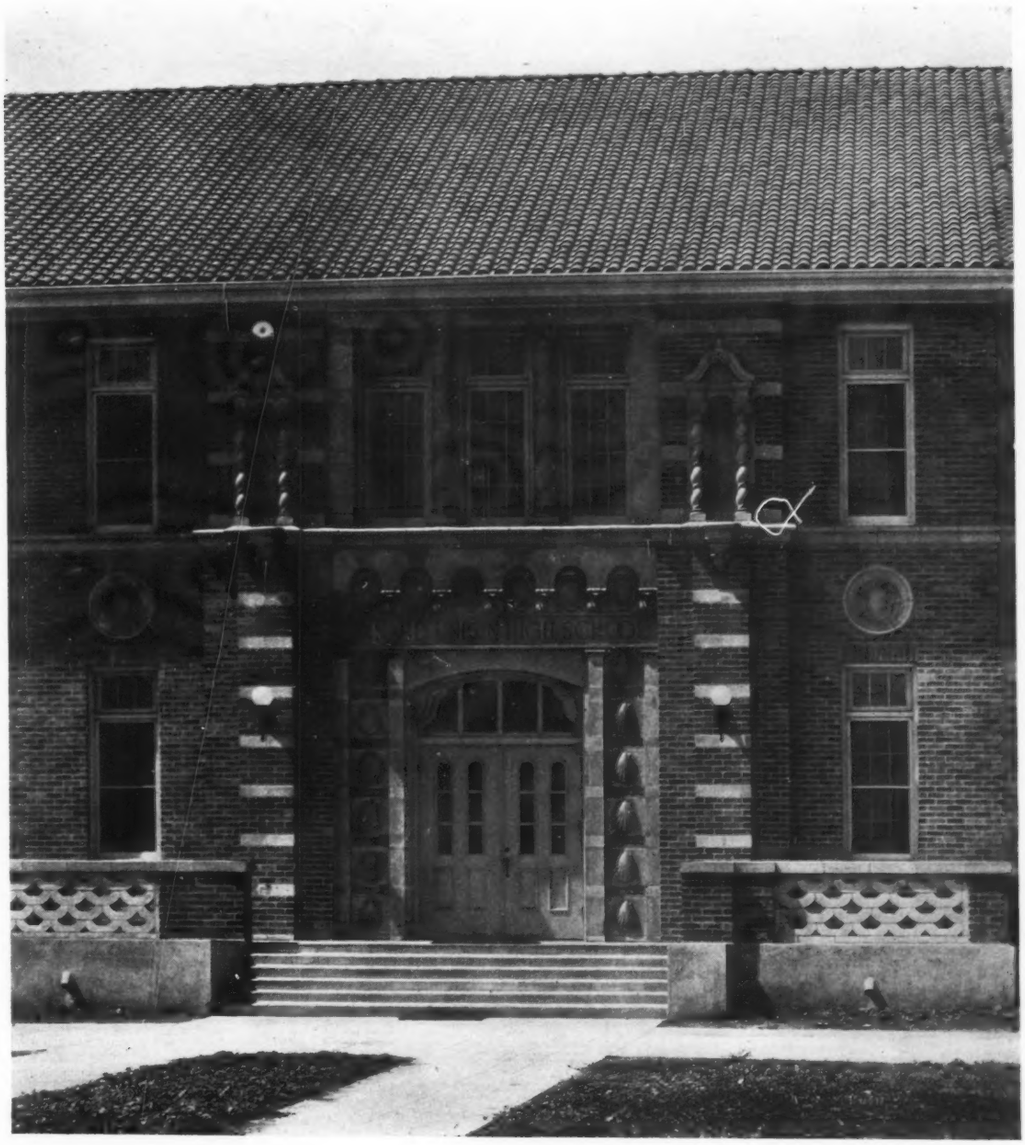
The amount of bonds voted in California for educational buildings for the year 1921 for elementary and high schools in forty-eight counties was $11,741,497.95* and for the year 1922 for elementary and high school $33,772,-900.00. This does not take into consideration the amount of money spent in these two years for private institutions, such as parochial schools, military schools, etc., nor does it include the amount of money spent for colleges and the universities in California.

This is as far as we will go into these interesting and astonishing statistics; but if Mr. Kahn's estimate of ten millions of people in 1935 is at all accurate, and if the present ratios between population and school attendance continue to hold,—then we may make an estimate of pupil and student attendance and expenditures of money for education buildings.

Kindergarten attendance by 1935	113,570
Elementary school attendance by 1935	1,617,848
Junior and Senior high school attend. by 1935	642,947
Junior College attendance by 1935	15,400
College and university attendance by 1935	40,000
Private school attendance by 1935	132,044
Normal schools and teachers' colleges	17,000

The average yearly expenditure for buildings is very likely to be $40,000,000.00 or a grand total of $480,000,000.00 for the 12-year period 1923 to 1935. This estimate is a conservative one and was derived in the following manner. For the average well constructed school building, the cost per pupil is somewhat as follows: High school, $450.00 per pupil; Junior High School, $350.00 per pupil; Elementary School, about $250.00 per pupil. The latter is probably a trifle high, but it is a fairly accurate estimate. Taking these three sums altogether and striking an average, is $350.00 per pupil. For an increase of 1,665,653 pupils and students, I have assumed a further reduction in the average cost or $300.00 per pupil which brings the total amount of money to be spent as an estimate of

*Note: 1921 was a lean year financially and industrially.



DETAIL,
UNION HIGH SCHOOL, OXNARD, CALIFORNIA.

about $499,695,900.00 and that divided by twelve gives an annual expenditure of $41,-641,325.00. I have reduced this further to $40,000,000.00 per year or a total of $480,-000,000.00 to be spent in the next twelve years for educational buildings.

Again these figures, which are conservative, are simply astonishing and astounding and yet they are facts to face in thinking of the future.

The writer is indebted to Dr. Frank W. Hart, Professor of Educational Administration of the University of California and Professor L. H. Peterson of the Department of Education of the University of California, for the data on the present enrollment, the amount of money appropriated for elementary and high school buildings during 1921 and 1922 and also for the estimate of pupil and student attendance 1935.

Now, just how are these sums to be spent, and by whom? It is easier to respond to the latter question first. The money will be handled by the school officials and by the architects of California. Just how it will be spent is far more difficult to predict and can be dealt with here but briefly. During the last decade a decided change has come into the educational system of not only California, but of the Nation. The Junior High School, or what is sometimes termed the Intermediate School has

taken a definite and undoubtedly a permanent position in the school system. Formerly the elementary or grade school was composed of the first to the eighth grades inclusively and sometimes the kindergarten, while the high school included the ninth to the twelfth grades inclusively. With the introduction of the junior high school, the grading is generally as follows: elementary school grades, first to sixth inclusive; junior high school, grades seventh to ninth inclusive; senior high school, grades tenth to twelfth inclusive. There are some variations to the above, but, on the whole, this grading is quite general.

The purpose of this change was to bring like-age-groups into closer relationships in their school work. Such an arrangement has been found to possess many advantages from the standpoints of discipline, school organization and social living of the students. The whole arrangement has been based upon the general principle that children and young people of like ages form more easily disciplined, more easily organized and more easily self-governed social bodies than do children of wide variation in age and interest.

It was further realized that to hold the larger percentage of pupils to completion of the eighth grade, it was necessary to enrich the curriculum or course of studies by providing a variety of shop work such as auto mechanics, forge work, sheet metal work, printing and mechanical drawing in addition to the simply equipped Sloyd or bench wood-working course so common in the former grammar schools. Likewise, the home economics, art, music, commercial, science and other courses have been enriched and extended. Physical education has been made obligatory by law. The State law advanced the age of compulsory education; school attendance grew mightily; educational research disclosed the facts of individual differences in educational needs of children and departmentalization penetrated the lower grades. A careful, almost nation-wide study of these, and other circumstances brought forth the new junior high school plant which has much the semblance of the high school, yet is considerably different.

A factor unforseen and not fully recognized by all is the value of shop work to the life of industry, and as time goes on this value will be recognized more and more by those who have to deal with youth in employment. No contractor or employer of labor is prone to employ apprentices and to move them on to the learning of trades, for the reason that for the first year and a half they are a burden, and it is not until they have almost completed their apprenticeship that they become of any special value to the employer at all. Now the junior high school is rectifying this condition so that the results will be beneficial not only to the employer but to the employee as well, and especially will it be beneficial to the State, which is paying the bill.

The junior high school shop work will give the student a sense of co-ordination between hand, muscles, nerves, eye and mind, so that when he leaves the junior high school, or ninth grade, which some will do, he will be able to step into the trades and quickly pick up the finer points which deal with relation between hand and mind. Everybody is aware of the awkwardness of a child learning to write. Something like this appears in the apprentice when he first attempts to use tools or to work machinery without some previous training. It is not the purpose or intention of the school system to teach the boy or girl trades. That would be outside the possibilities of the school's capabilities, or, if it should attempt this function, the product would be more or less half-baked, because practical experience is not obtainable in a school. The job, the varieties of the job and the conditions surrounding the job will always vary between the school and the working world. Besides, the time required to train boys for trades would conflict disastrously with the just time required in school for the pupil's general education. Consequently, the junior high school boy can be taught only the elementary features of the various trades. But inasmuch as he is compelled to take shop work, it means that, even should he go no further than junior high school, and should then be forced to leave and to earn his own living, he will be better prepared to succeed than was the boy of the past. This holds true for girls as well. This increased chance for success in life is conducive, of course, to improved citizenship, which is the principal aim of all education. What is really happening is that the junior high school is likely to develop into a great human research laboratory for vocational or better yet, for pre-vocational training, so that the boy or girl may discover himself or herself.

As a consequence of the junior high school, the senior high school assumes a decided change. Courses required in the junior high school which are extended into the senior high school become elective in the latter and in some instances are not at present popular, such as cooking and sewing and some of the shop work, since they appear repetitious. Also,

some of the subjects formerly appearing in the high school curricula are now taught in the junior high school, consequently these revisions necessitate modifications to the senior high school plant.

And now another step forward is well established as to educational policy by the introduction of the junior college, an institution intended to relieve the university of the first two years' work, thereby making the university more effective and keeping the students of the first two years nearer home and in smaller groups.

The junior college has been established in a number of high school districts and becomes a part of that particular district, but it will soon assume larger and more important proportions because it will have to become a county—a bi-county or a tri-county institution in order that the resources in student population and finance may amount to something more than a side issue of the high school. As a matter of interest, the state law has already provided for this.

Furthermore, each high school district has so much financial burden to provide for the expense of buildings, equipment and teaching that the junior college must look further afield for its support, that is, must depend upon larger financial and population areas.

A resume of the school system shows, (a) the kindergarten; (b) the elementary schools; (c) the junior high schools; (d) the senior high schools; (e) the junior colleges; (f) the State normal schools, and, (g) the universities, to say nothing of the numerous private schools and colleges already established. With such a classification and with each division becoming more and more enriched in its curricula, it is evident that the educational building program will increase greatly, not only in magnitude and in complexity, but almost in its very character.

An estimate has been made of the annual expenditure in buildings and equipment and this should hold forth most inviting allurements to the members of the architectural profession to apply their talents and skill to the handling of this great task so that the achievements of the next decade will surpass those of the last ten or twenty years. And it is the writer's firm belief that this will come to pass, because of the virility and youthful strength and better training of the younger men of the profession. (Note: lest some feelings be hurt, this includes all those under sixty-five.)

While we are mentioning the possibilities of opportunities for effort, love of work, achievements and happiness, let us consider also the seriousness of the obligations entailed in such undertakings. These are too many to be enumerated and dilated upon here, nor can we see more than a few of them at this distance, but the matters of health or hygiene, comprehension of the different organizations, true economics and meritorious architectural composition or creations may be mentioned and briefly discussed.

How many are aware that non-promotion, retardation or what is sometimes called retention of pupils, for the year 1921, cost the State of California approximately seven millions of dollars. In other words, pupil failures in that year cost the State that vast sum of money; but what has it cost the cause of good citizenship in its disheartening effect upon the child who is soon to be a man or woman and who in school was not able to keep pace with his fellows?

To substantiate the above statement, permit me to quote in part, from an address by our very able State Superintendent of Public Instruction, Mr. Will C. Wood, before the Conference on Educational Research and Guidance at San Jose, California, May 30, 1922: "Last year ten per cent of the boys and girls enrolled in the elementary schools of California were repeaters. Over seventy million dollars was spent on education in California last year. Ten per cent of this seventy million dollars was spent on re-education of repeaters. I am convinced we shall have to find some way of cutting down the number of repeaters when the tax payers begin to examine our work more carefully. Is it necessary to have ten per cent of our young people each year repeat their work?"

Now, all this is not due to sub-normalcy, backwardness, stupidness or sickness on the part of the child, nor is a large part of it due to poor teaching. Some of it is due to all of these, but I dare say a large part is due to overcrowding of classrooms so that neither the teacher or child can do justice to the subject matter, and I do know from personal observation that a great deal is due to wretched ventilation. Who has not sensed the state of coma endeavoring to study in a stuffy room, and what trained mind can work to advantage under such conditions, to say nothing of the plastic moulding minds of children which like water turn to the avenues of least resistance.

Then there are the developments and simplifications of equipment. A field almost untouched except by the manufacturer whose concern is largely influenced by the commer-

cial aspect of the equipment. The architect should be the leader in such developments that will make the school a healthier and happier place for living and working.

Now as to comprehending the pedagogical organization within the several divisions no better suggestion can be offered than that of hitching one's wagon to an alert minded educator, be he or she an educational administrator, a superintendent, a principal, or a teacher, just so long as they know where they are going and the way to get there. In other words, collaboration between architect and teacher to the fullest extent will go far towards solving the problems at hand and ahead.

It is quite beside the question for a member of any one of these professions to keep abreast of the progress and details of the two professions. This holds true for the members of the teaching profession just as it does for those of the architectural profession, notwithstanding the training and inclination of both.

It is curious to note that even among the leaders in school administration that they are not fully and confidently agreed as to the best methods of teaching, courses and particularly equipment in all the departments of the school, especially those of the high school. The reason for it is that the several departmental heads and teachers manage the departments, arrange and direct the courses of study while the administrators have their hands full managing the plant or plants as a whole. This is as it should be, for it isn't within the realm of humanity possible for any school superintendent to be able to teach and guide the work in all the departments. Life is too short. Therefore, how is it possible for the architect to presume that he can do it alone, and, of course, he doesn't which leads to the matter of right planning and worthy economies in handling the vast funds and buildings involved.

No attempt will be made here to offer advice regarding structural economies, because the great majority of the members of the architectural profession always have that in mind anyway. But great economies can be exercised in the size of rooms, types and design of equipment, the story heights of shops, and a great many other matters which soon become evident with familiarity with the problem. It is as easy to err overloading a department with superfluous apparatus, as it is to inadequately equip it. It is the happy medium that the well trained departmental head and the architect will arrive at from their combined study and tests.

It isn't necessary to hold fast to the Coue theory for we know that "in every way and day by day School Architecture is getting better and better." It is the result of greater distribution of the work among the members of the architectural profession. It is proverbial that with the diffusion of knowledge the general average improves and the leaders step faster, or are out-distanced by the new arrivals. It is the struggle for leadership that is bringing forth orderly conceptions in plans, pleasing compositions in exteriors, better relation in buildings to grounds, finer color harmony between interiors and furnishings, keener selection of and more permanency in materials and so on ad infinitum. But what has all this to do with the glimpse into the future? Nothing more than to say that all which has been said here is being done this minute by both the teaching and architectural professions and that their combined efforts will bring forth the finest school and educational buildings the world has yet seen and they'll be better and better in every way because of the more complete understanding of the many great problems with their innumerable details. And the fine fellowship so evident with the return of peace and prosperity is enhanced with exchange of ideas and data. All this means a glorious future with continuous opportunities for exercise of talents, training, experience and good taste, all of which will make the world happier.

NOTE: Mr. John J. Donovan designed many of the finest schools in Oakland, California, while City Architect, and numbers of other schools, since then, throughout California and neighboring states. Besides compiling an exhaustive treatise on "School Architecture", which is used as a reference and authority by all school boards and school architects. Mr. Donovan has served on the Committee on School Buildings of the National American Institute of Architects, and on the State Board of Architecture for Northern California.

SANTA MONICA HIGH SCHOOL, SANTA MONICA, CALIFORNIA.

Two Schools in California

Allison and Allison, Architects

By PETER B. WIGHT, F.A.I.A.

When about ten years ago the important development of school architecture in California began to be known throughout this country the most detailed information about it was sought with avidity. It was coincident with the growth of the agitation for public play grounds. They were established in all the centers of advanced education, in which Chicago took the lead. There they were not connected with schools but were generally located in congested neighborhoods, while at the same time there began to be developed a system of small parks in outlying neighborhoods, supplementing the large parks which were for the enjoyment of those able to drive and have landscape and scenic surroundings. But soon it began to be advocated that the play grounds should be connected with schools. This could not be done in closely built districts and was only feasible in the suburbs of large cities.

In California the great change not only consisted in enlarged school grounds, but was a radical one, in so far as concerned the planning of the buildings. School buildings which before had been erected with basements above ground and two or three stories above them were reduced to two stories without basement; and soon the one story school appeared. This was the greatest innovation; and the architectural journals were active in reproducing their ground plans and arrangements as fast as any new ones were built. It was more practicable to do this in Pacific Coast cities than in the middle and eastern states, because there were larger areas of unimproved property in those cities, and land was cheaper. But the one-story school was the most attractive improvement, and there were more reasons for its practicability on the Pacific Coast and in the milder climate of Southern California than anywhere else. The cheaper construction of one and two story buildings was an offset to the greater cost of the enlarged play grounds around them. But the greatest economy in the one story schools was due to the elimination of the expense of stairways and the fact that they were so safe as against fire and panic that fireproof building materials could be wisely dispensed with. Another improvement was the elimination of all halls, the rooms being reached by open corridors which became architectural features

capable of artistic expression. The planning of schools became a new art and most of the old conventions disappeared in them.

The influence of this reform soon began to take root all over the country, and instead of continuing to build expensive three and four-story fireproof schools in cities such as New York, Chicago, St. Louis and others, most of the new schools were reduced to two stories and covered larger areas of ground, under the advice and influence of such architects as Snyder of New York and Ittner of St. Louis. At the present time the two story school is the standard in all eastern and middle west cities. But in California the one story school is now the standard, and the high schools are seldom more than two stories high.

In California larger grounds in proportion to the school attendance are provided than in any eastern cities. They are not altogether for exercise and play, but are partly treated and improved as gardens, and provision is made for enlarging the buildings to any extent to meet the demands due to increase in population.

Among the first architects to study the new problems was the firm of Allison and Allison, two brothers, of Los Angeles. Up to the present time their experience in designing grammar schools and high school buildings in California has been larger than that of any other architects on the Pacific Coast. Most of their works have been published, but there is still much to be said of them that is new.

Santa Monica, on the Pacific Coast, eighteen miles from Los Angeles, enjoys the possession of one of the finest high schools ever built. It is large enough to provide its children with the higher education for many years to come, and its grounds are so large that they will answer their purpose for all times. They are only about half a mile from the sea beach, and, as the street grades have a gentle rise of about 120 feet for the whole distance, there is not only a magnificent ocean view covering twenty miles of the coast, from the main building, but from every part of the grounds.

These comprise about sixteen acres facing toward the Pacific Ocean on the west side of Fourth Street and extending east to Seventh Street, a distance of three blocks or about eleven hundred feet. They are bounded by Michigan Avenue on the north and Fremont avenue on the south. The lot has a width of 500 feet on Fourth Street and 600 feet on Seventh Street. Two north and south streets abut upon it, where there are four entrances. There is an additional entrance to the athletic field at the west end. The ground continues to rise from the west and to the east and the main building is at the highest point, where its frontage to the west is 465 feet.

Fremont Avnue had not been graded when the plans for the whole improvement were made, but the grade established by the city engineer contemplated a very slight cut. The development of the plans convinced the architects that the group of buildings should be treated symmetrically; that is, the two end buildings should be of about the same general design, height and dimensions, which would require an addition of sixteen feet for the general cut of Fremont Avenue and the removal of approximately seventy-five thousand yards of earth from the high school site. They made their plans accordingly; included the grading in the general contract, appeared before the City Council of Santa Monica and successfully urged the change in the street grade, so that the site now has a gentle slope in all directions from the main building.

Fremont Avenue grade is very much improved as a result, and the wisdom of the change is very apparent not only in the effect ot the completed buildings, but in the grade of Fremont Avenue.

The memorial gateways, which are the north and south entrances to the athletic field at Fifth Street, were donated by the heirs of two prominent Santa Monica pioneers; that at the south entrance, known as the Elliott gateway, by the heirs of Robert P. Elliott; and the one at the north entrance, known as the Vawter gateway, by the heirs of Williamson D. Vawter.

All of the landscape and planting was designed in the architects' office under the direct supervision of the junior member of the firm, David C. Allison, with the assistance of Mr. John D. Shaw, landscape architect, who was consulted with reference to the shrubbery, trees and other planting. The planting scheme is not yet completed. The architects prepared a complete plan and specifications for this, designating by number the location of every plant and its kind. It is now being developed gradually, as funds are available, and is about seventy-five per cent completed. The whole scheme for planting alone involves an expense of about $10,000.

In an article so extensively illustrated as this it seems hardly necessary to describe the plan and architecture of the several buildings; all

that will be necessary for some time to come having been completed.

But there are features in the exterior design which are well worthy of comment. But the fact is that there are no materials used in any part of the exterior of these buildings except rough red brick and cement, the cement mortar with which the bricks are laid. No special shapes of bricks are used, and in few instances have bricks been cut to carry out the designs. All trimmings and copings are of cast concrete. The bricks are uniformly rough, of a dark red color, and large size, twelve inches long, five inches wide and three inches high. These are of unusual size, but in proper scale for such large buildings. When white appears in the pictures it is the light gray cement color, and beautiful mosaic effects are obtained on a large scale by setting the bricks back an inch and filling the sinkage with cement as the bricks are laid. Thus the grandeur in effect is obtained in the simplest possible manner; but the art which produced it was the conception of the architects alone.

One of the results has been that they were enabled by strict economy to keep the cost of the buildings within the appropriations, which were apparently meager for the purpose. The hardest problem was that of keeping the cost of the enormous amount of excavation required within the appropriations made for the buildings alone. But the foresight of the architects has been appreciated by the people of Santa Monica, who see that the improvement in the grade of the surrounding streets is a public benefit to the surrounding property, which is now being rapidly improved in a better manner than would otherwise have been the case.

The bricks of which these immense buildings are built are made of the same clay as that on which they stand, as if they had literally come out of the ground as things of beauty; and conceived as such; for their architecture is native to California and not patterned after any of the so-called historical styles of architecture. It is another evidence of the continued existence of a rational and progressive architecture in America.

THE GLENDORA SCHOOL

The Glendora grammar school, which the writer discovered by accident, not expecting to find architecture under the brow of the Sierra Madre range in the beautiful little village where it is located. It is about sixty miles east of Los Angeles at the terminus of one of the electric railroads which converge in that city.

This is one of the latest examples of one story school houses spread out on a large lot with surrounding playgrounds, which, when improved, will be a beautiful city park.

The building is of rough red brick, with overhanging Spanish tiled roof. All the trimmings are of cast concrete, and the walls under the loggia are stuccoed with cement. The whole thing is indicative of simplicity, and its beauty is found in the good proportions of its parts. Such a building speaks for itself and is easily described. But it is typical of what California is doing for its children, aided by the blessings of a mild climate, in which, of course, it has an advantage over other parts of our country. At the north and east the rising generation could only be provided with equal educational and recreative advantages at much greater expense.

In closing the account of these fine buildings, it is a pleasure to be able to record the fact that at a meeting of the Southern California Chapter of the American Institute of Architects held at Los Angeles on the 12th of March Allison and Allison were awarded the Chapter Medal of Honor for distinctive and meritorious architectural design in the miscellaneous building class for 1918, within the jurisdiction of the Southern California Chapter; the Los Angeles State Normal Schools, erected about the same time as those herein mentioned, being the particular buildings mentioned by the jury, which was composed of William B. Faville, William Charles Hays and George W. Kelham of the San Francisco Chapter.

At the Fifty-first annual convention of the American Institute of Architects held in Philadelphia, in April, James E. Allison, senior member of the firm, was raised to the grade of Fellowship (F.A.I.A.)

(Note: This article is reprinted by the courtesy of the "Western Architect".)

EDITORIAL

To present as nearly complete a review of the work of a leading architectural firm as is given in this issue of The Building Review, is an important contribution to the advancement of architecture in this country. We believe that the consistently high quality of Allison and Allison's work as here shown, is bound to be a revelation and an inspiration. Their ability has long been recognized, and their spheres of activity have been steadily spreading; but now a really comprehensive idea can be formed of their record of accomplishment.

There will be found here no great variety of styles, and no vague experimental essays. Neither is there slavish imitation, nor stupid repetition of hackneyed motif or meaningless detail. The designer of these buildings has chosen an architectural alphabet of established excellence, with which he is on terms of intimate familiarity, and has skillfully arranged his elements into new combinations that have meaning and interest; that carry a distinct message; that please and edify.

To do this once might be the result of happy chance, of a flash of inspiration. But there is no chance behind these designs. There is knowledge and power.

Such a demonstration of the essential virility, vitality, of good architecture is welcome and opportune. There is a frequent, false cry that architecture is dead, which leads, on the one hand, to complacent (and often corrupt) copies of past glories, and on the other, to the unfortunate results which have come from attempts to create new forms of art.

It is well that the class of work in which this firm has become a specialist is one through which the influence of good design is most far-reaching. Public school buildings are not only the daily environment of the growing generation, but more and more are coming to be community centers. It is probable that the design of all future local architecture will be affected by the schools of Allison and Allison.

The University Club of Los Angeles is a joy to an architect, a pleasure to a guest, and a home to its members. From bottom to top, it is a harmonious unit; without a suspicion of hotel-style "Period" decoration, it is consistent throughout in its Italian inspiration. Walls, ceilings, floors, fittings, all the component parts compose well together. It has not at all the air of a museum, but there is on the contrary a distinctly restful atmosphere, due in some degree, no doubt, to the admirable and restrained color scheme. And, if there is a more charming spot in the midst of a great city than the cool green garden hedged by cypress and orange trees and bougainvillea vines, which floats above the garage forming an out-doors annex to the great lounging room, it has been well concealed.

In contrast, the description of the Zenith Athletic Club House in "Babbitt", by Sinclair Lewis, is worth quoting:

"The entrance lobby of the Athletic Club was Gothic, the washroom Roman Imperial, the lounge Spanish Mission, and the reading room in Chinese Chippendale, but the gem of the club was the dining room, the masterpiece of Ferdinand Reitman, Zenith's busiest architect. It was lofty and half-timbered, with Tudor leaded casements, an oriel, a somewhat musician-less musicians'-gallery, and tapestries believed to illustrate the granting of Magna Charta. The open beams had been hand-adzed at Jake Offutt's car-body works, the hinges were of hand-wrought iron, the wainscot studded with hand-made wooden pegs, and at one end of the room was a heraldic and hooded stone fireplace, which the club's advertising-pamphlet asserted to be not only larger than any of the fireplaces in European castles, but of a draught incomparably more scientific. It was also much cleaner, as no fire had ever been built in it."

Harris Allen

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LOS ANGELES, CALIFORNIA
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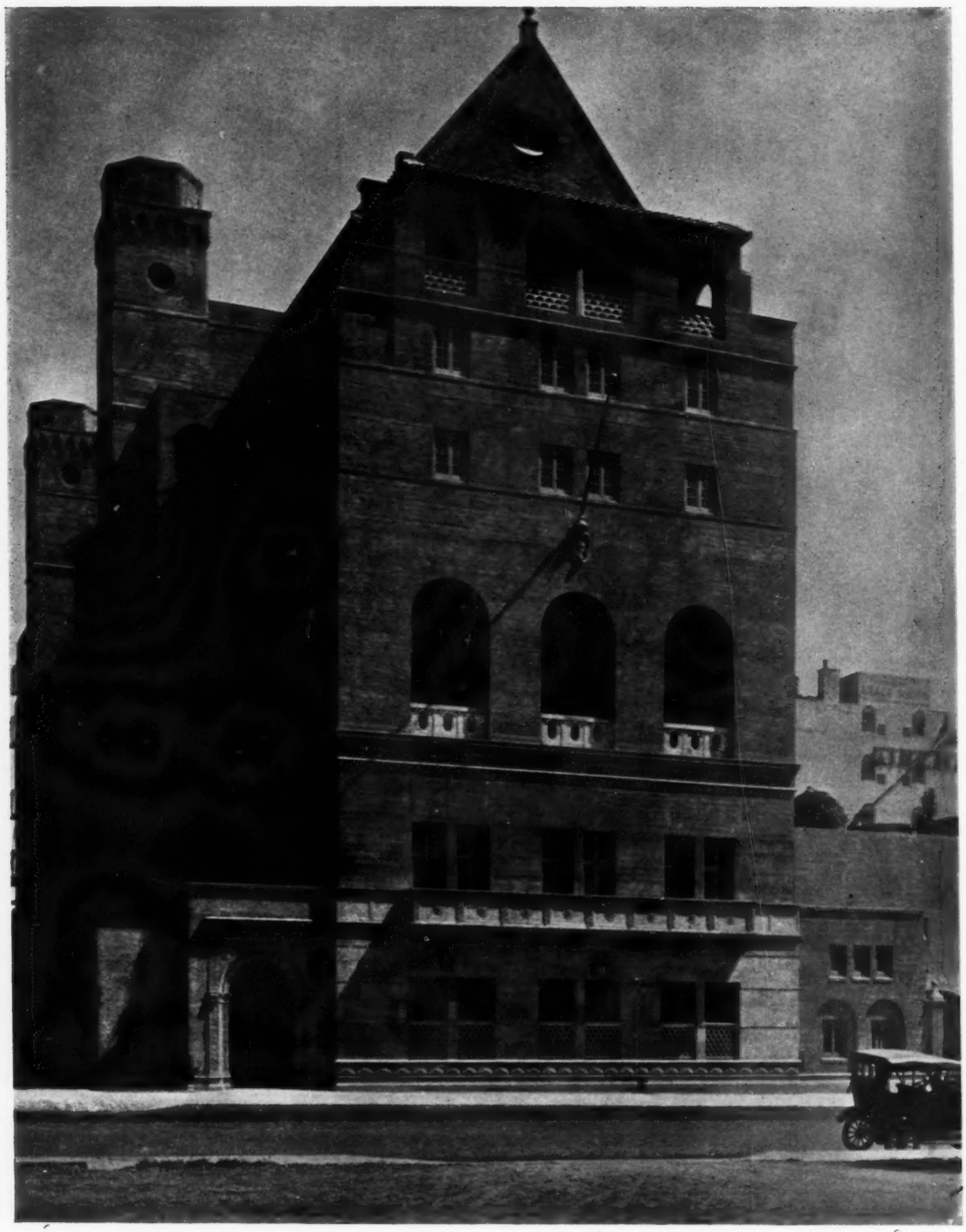

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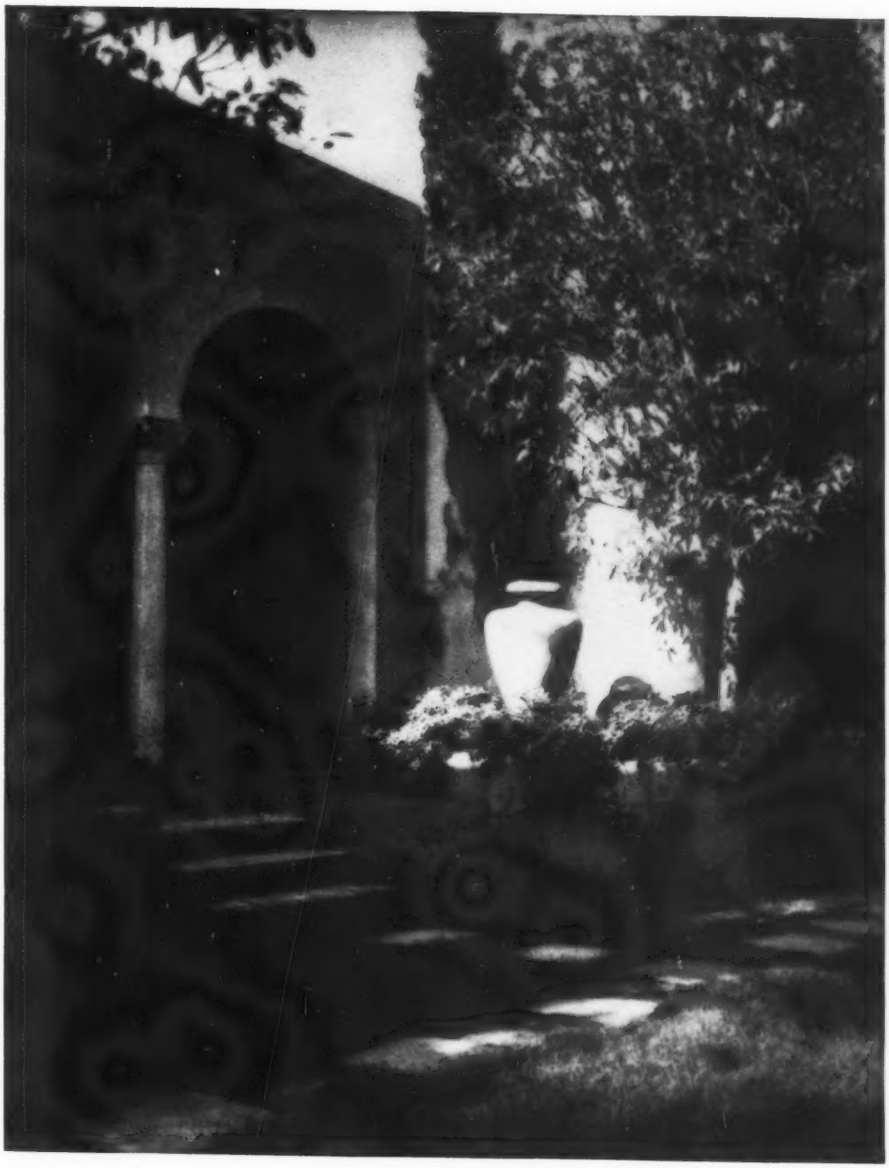

LOGGIA IN ROOF GARDEN,
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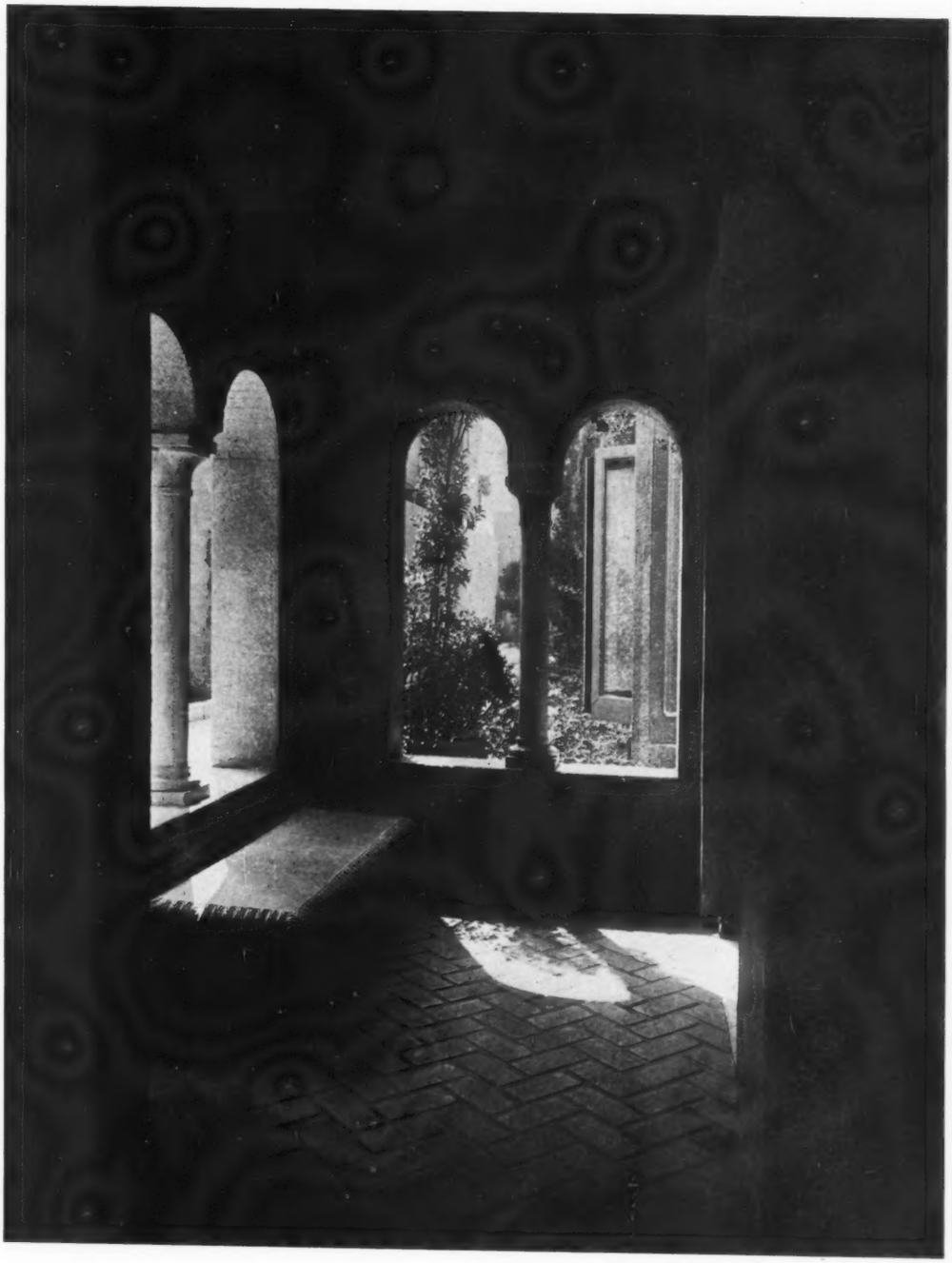

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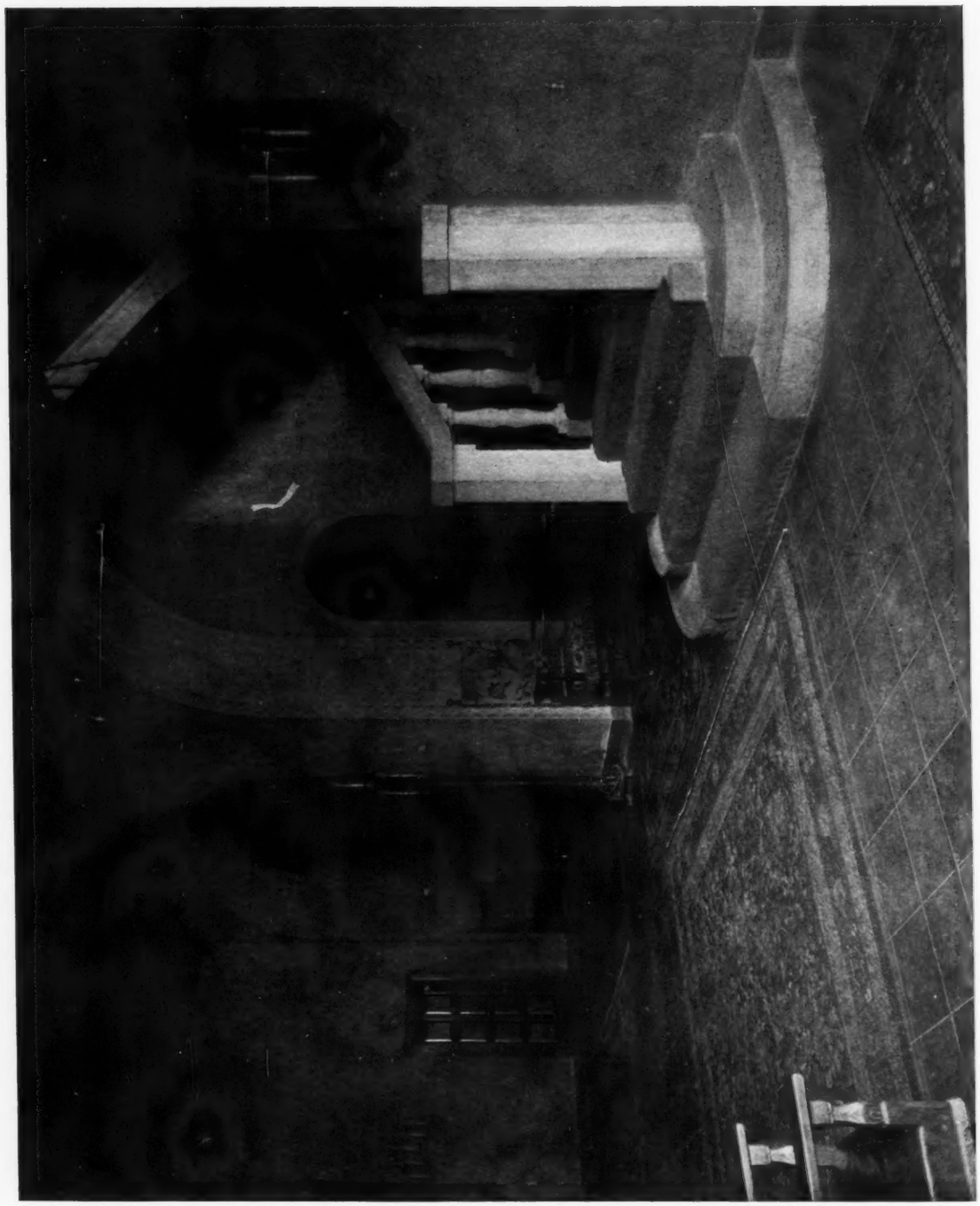

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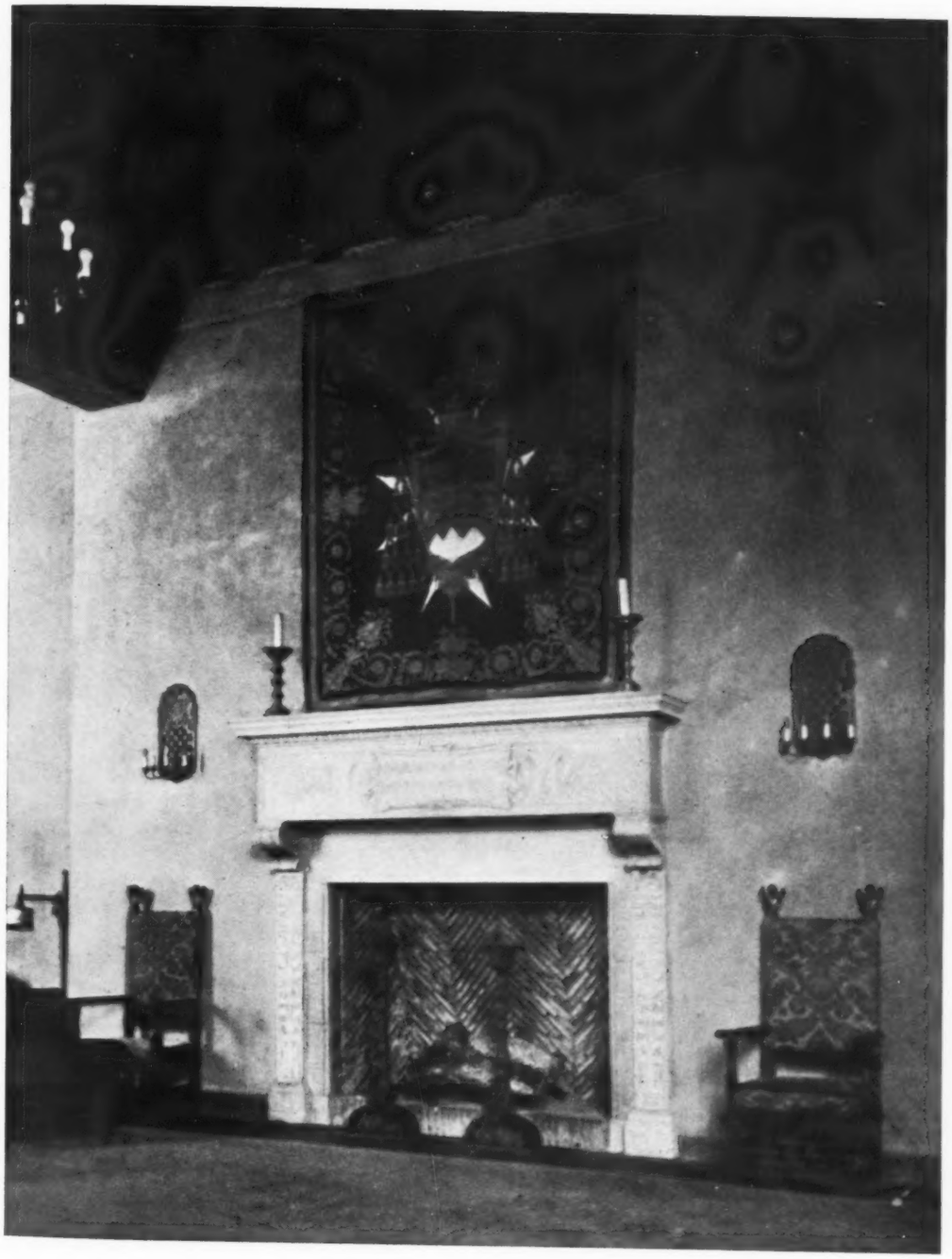

MANTEL IN LOUNGE,
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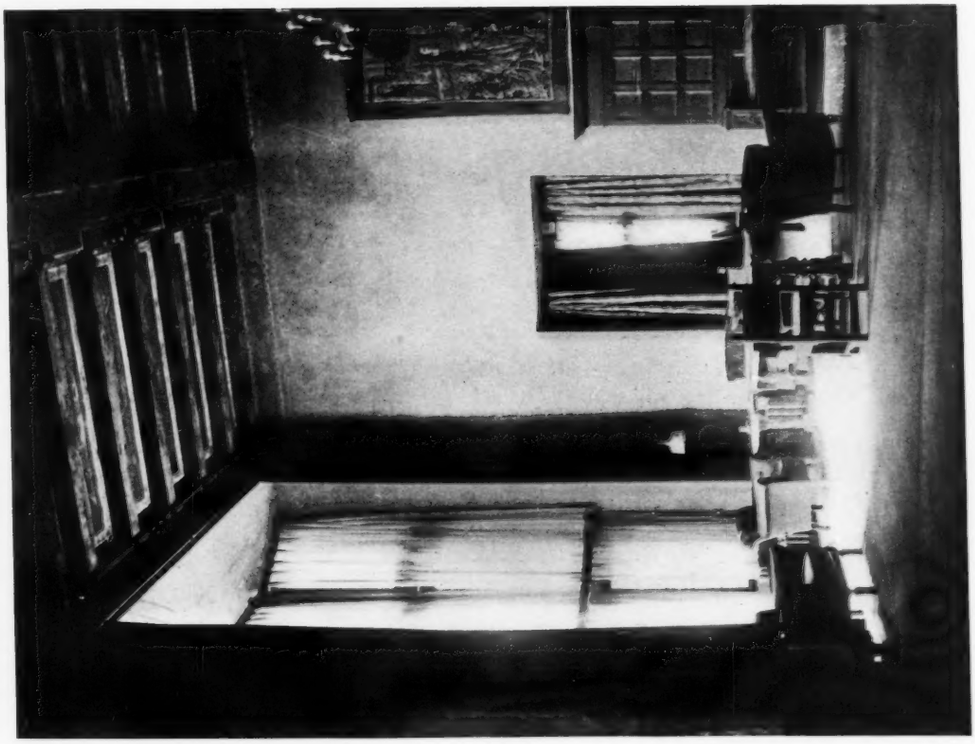
DINING ROOM,



LOUNGE

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WRITING ROOM

MANTEL IN SILENCE ROOM

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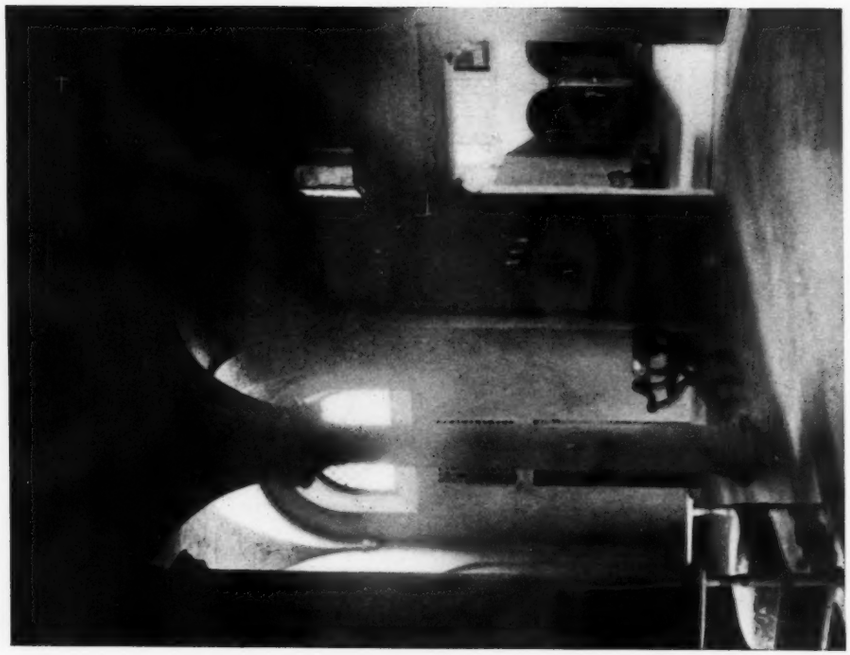

GREAT HALL,

ELEVATOR HALL,

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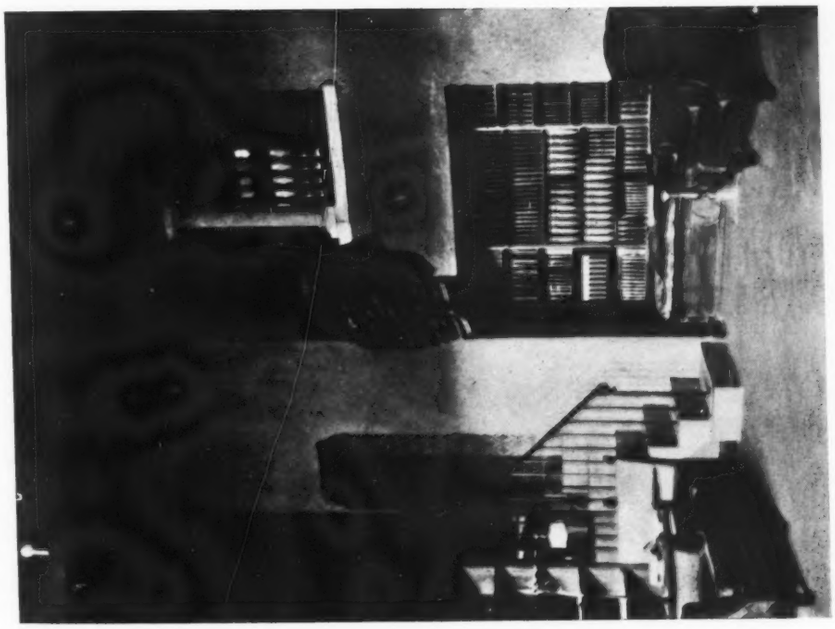

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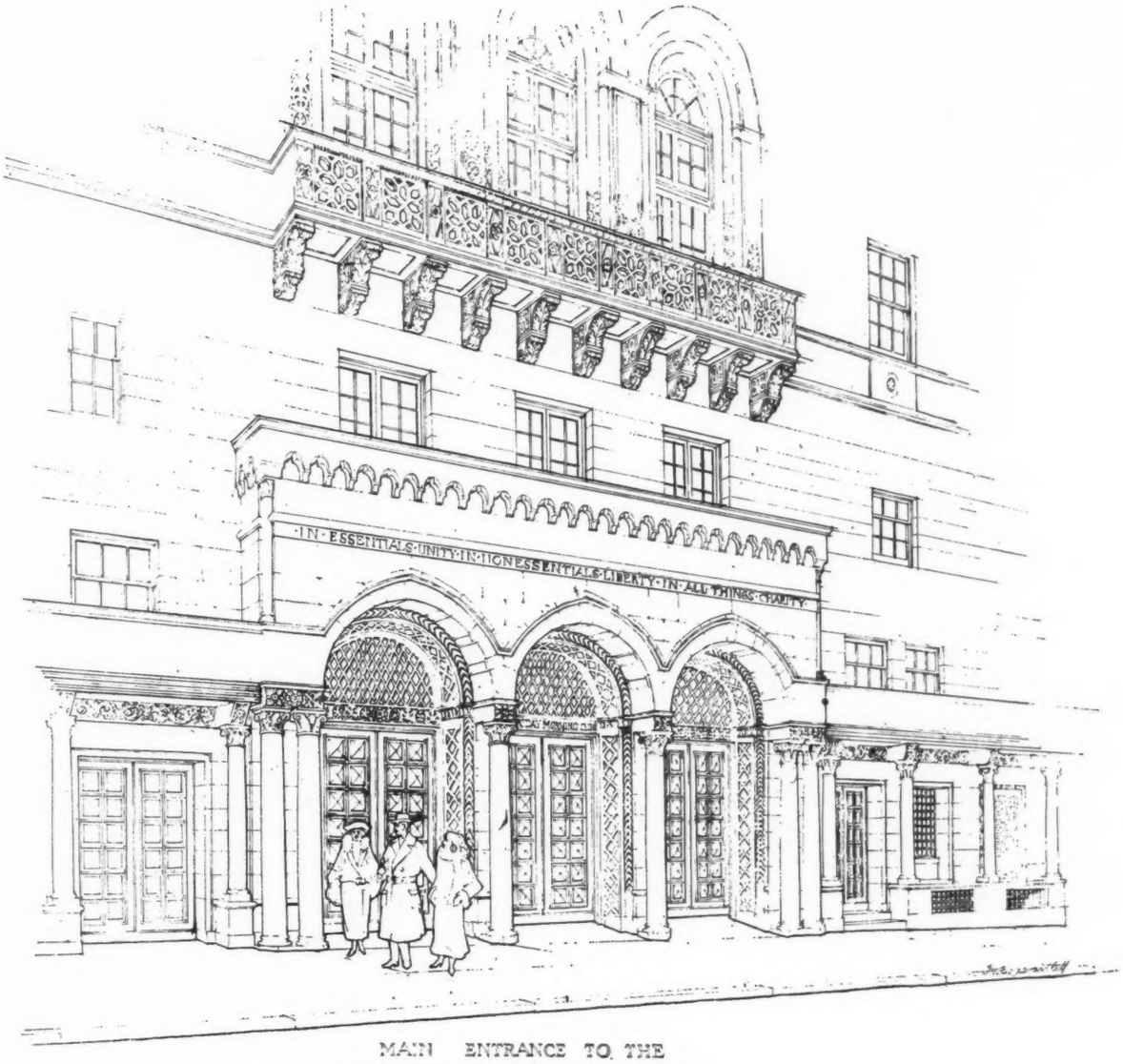

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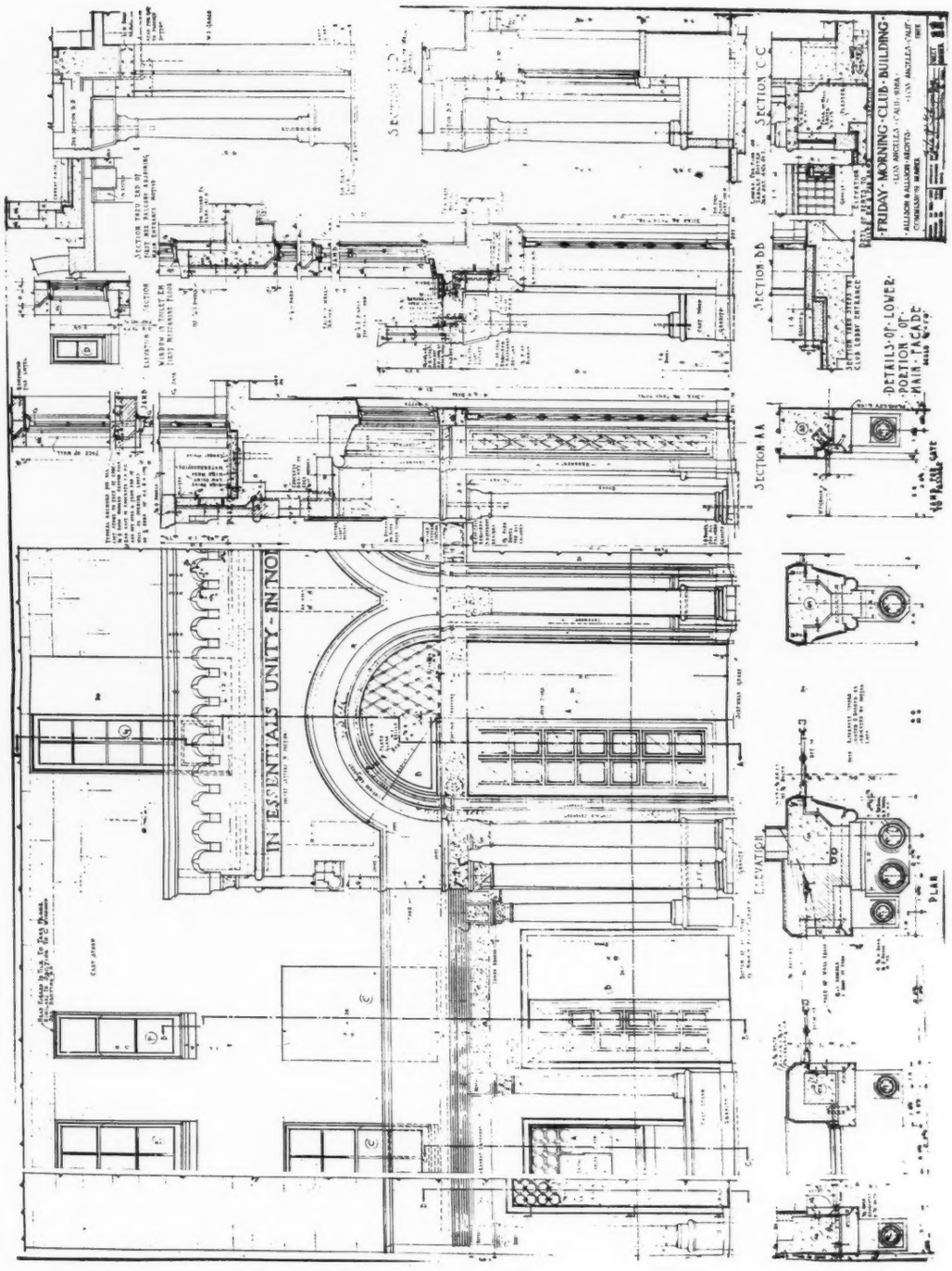
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OF MAIN FACADE,
THE FRIDAY MORNING CLUB
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ADMINISTRATION BUILDING,
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AUDITORIUM FROM CLOISTER.
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PALO ALTO, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

WEST ENTRANCE,
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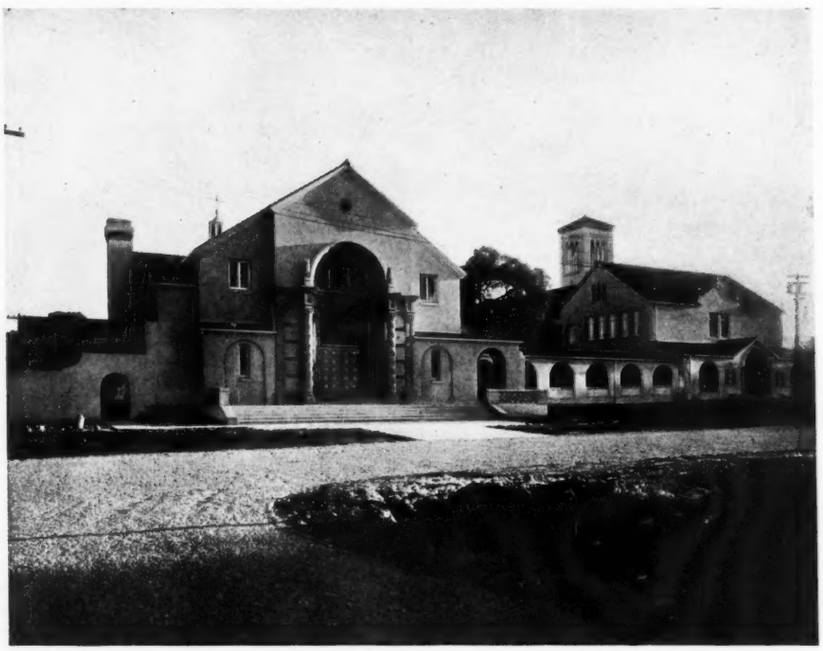

AUDITORIUM

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PALO ALTO UNION HIGH SCHOOL
PALO ALTO, CALIFORNIA
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VIEW OF GROUP FROM STANFORD ENTRANCE
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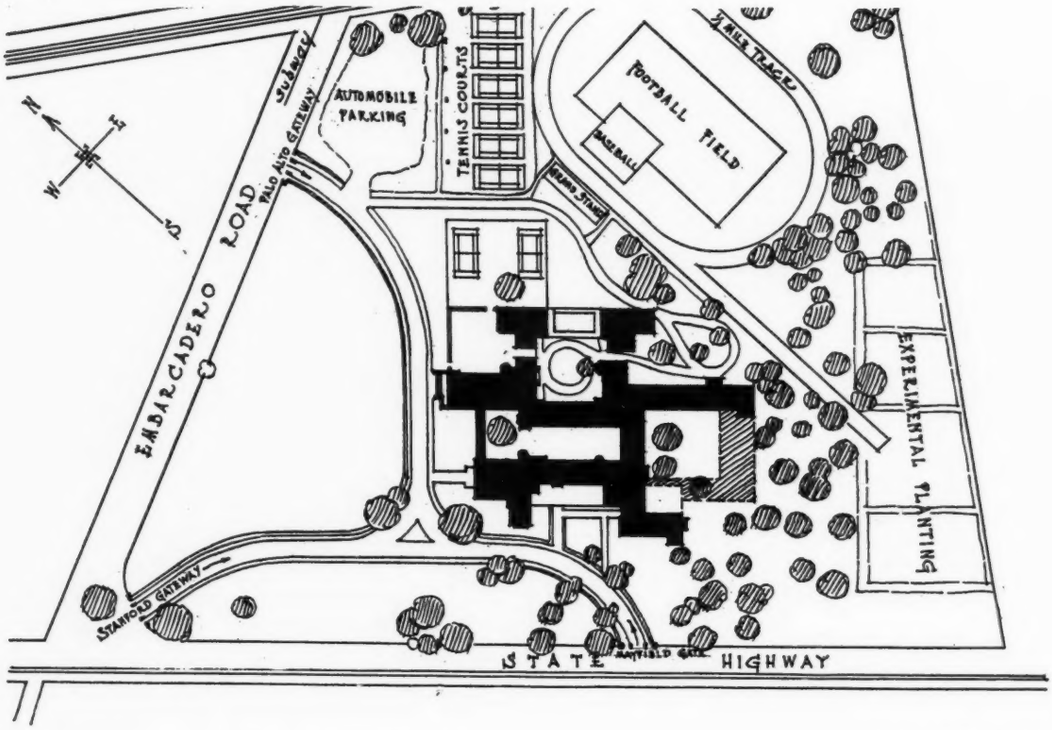
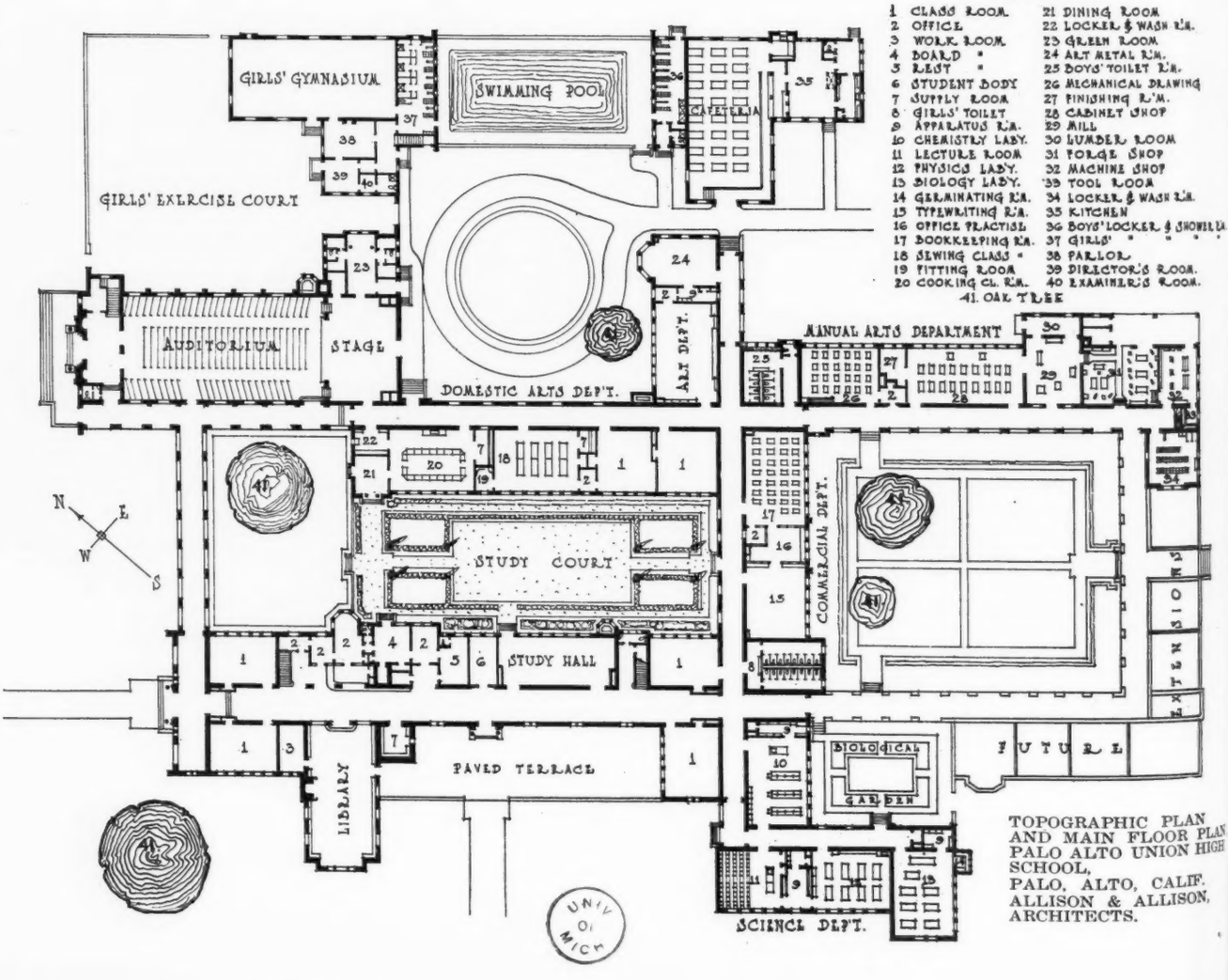
PALO ALTO, CALIFORNIA
ALLISON & ALLISON, ARCHITECT





·LEGEND·

1	CLASS ROOM.	21	DINING ROOM
2	OFFICE	22	LOCKER & WASH R'M.
3	WORK ROOM.	23	GREEN ROOM
4	BOARD "	24	ART METAL R'M.
5	REST "	25	BOYS' TOILET R'M.
6	STUDENT BODY	26	MECHANICAL DRAWING
7	SUPPLY ROOM	27	FINISHING R'M.
8	GIRLS' TOILET	28	CABINET SHOP
9	APPARATUS R'M.	29	MILL
10	CHEMISTRY LABY.	30	LUMBER ROOM
11	LECTURE ROOM	31	FORGE SHOP
12	PHYSICS LABY.	32	MACHINE SHOP
13	BIOLOGY LABY.	33	TOOL ROOM
14	GERMINATING R'M.	34	LOCKER & WASH R'M.
15	TYPEWRITING R'M.	35	KITCHEN
16	OFFICE PRACTISE	36	BOYS' LOCKER & SHOWER R'M.
17	BOOKKEEPING R'M.	37	GIRLS' " " "
18	SEWING CLASS "	38	PARLOR
19	FITTING ROOM	39	DIRECTOR'S ROOM.
20	COOKING CL. R'M.	40	EXAMINER'S ROOM.
		41	OAK TREE

TOPOGRAPHIC PLAN AND MAIN FLOOR PLAN
PALO ALTO UNION HIGH SCHOOL,
PALO, ALTO, CALIF.
ALLISON & ALLISON,
ARCHITECTS.

UNIV OF MICH

ELEMENTARY SCHOOL,
COLTON, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

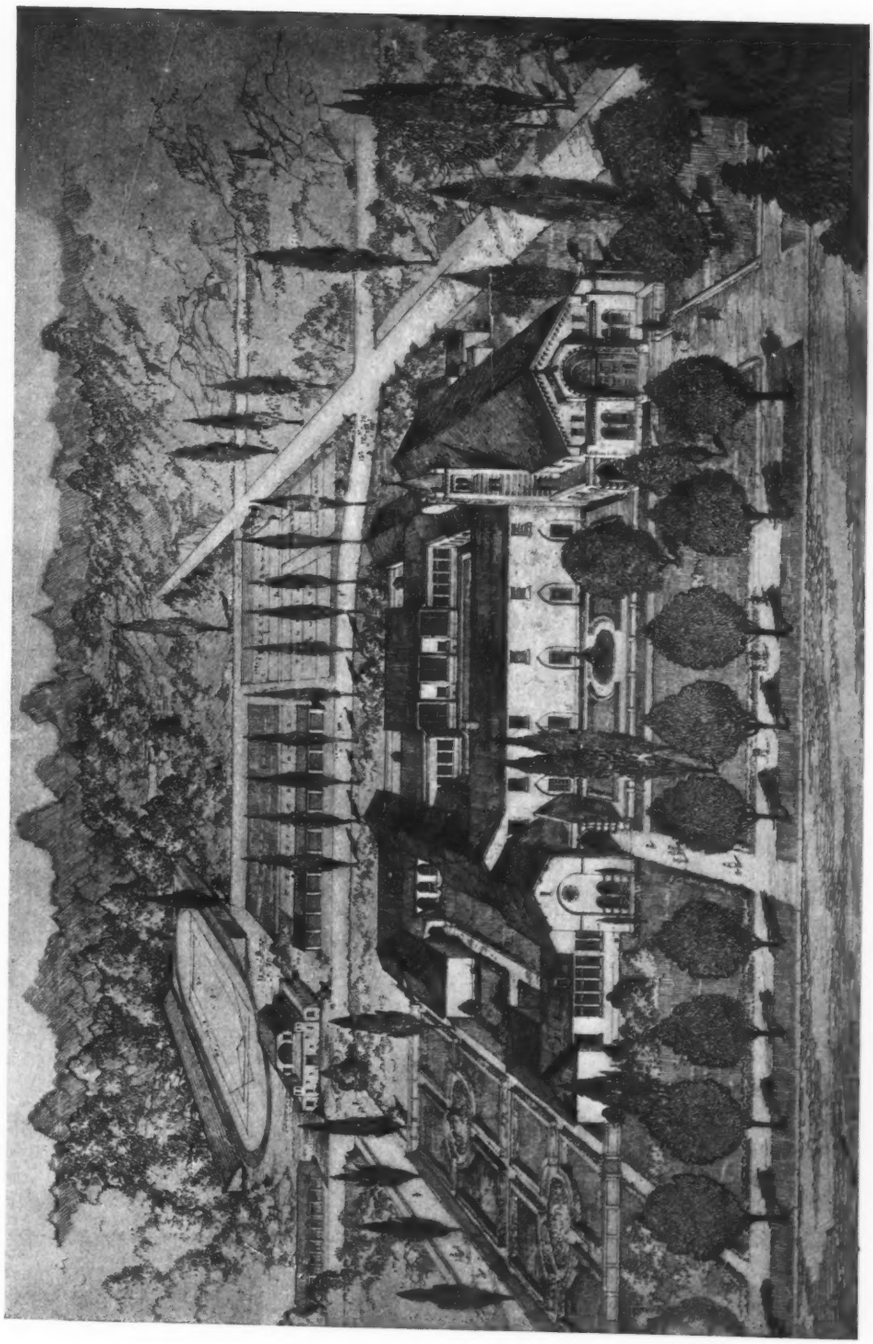
UNIV. OF MICH.

MAIN ENTRANCE

DETAIL

UNIV. OF MICH.

UNION HIGH SCHOOL,
SANTA MARIA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



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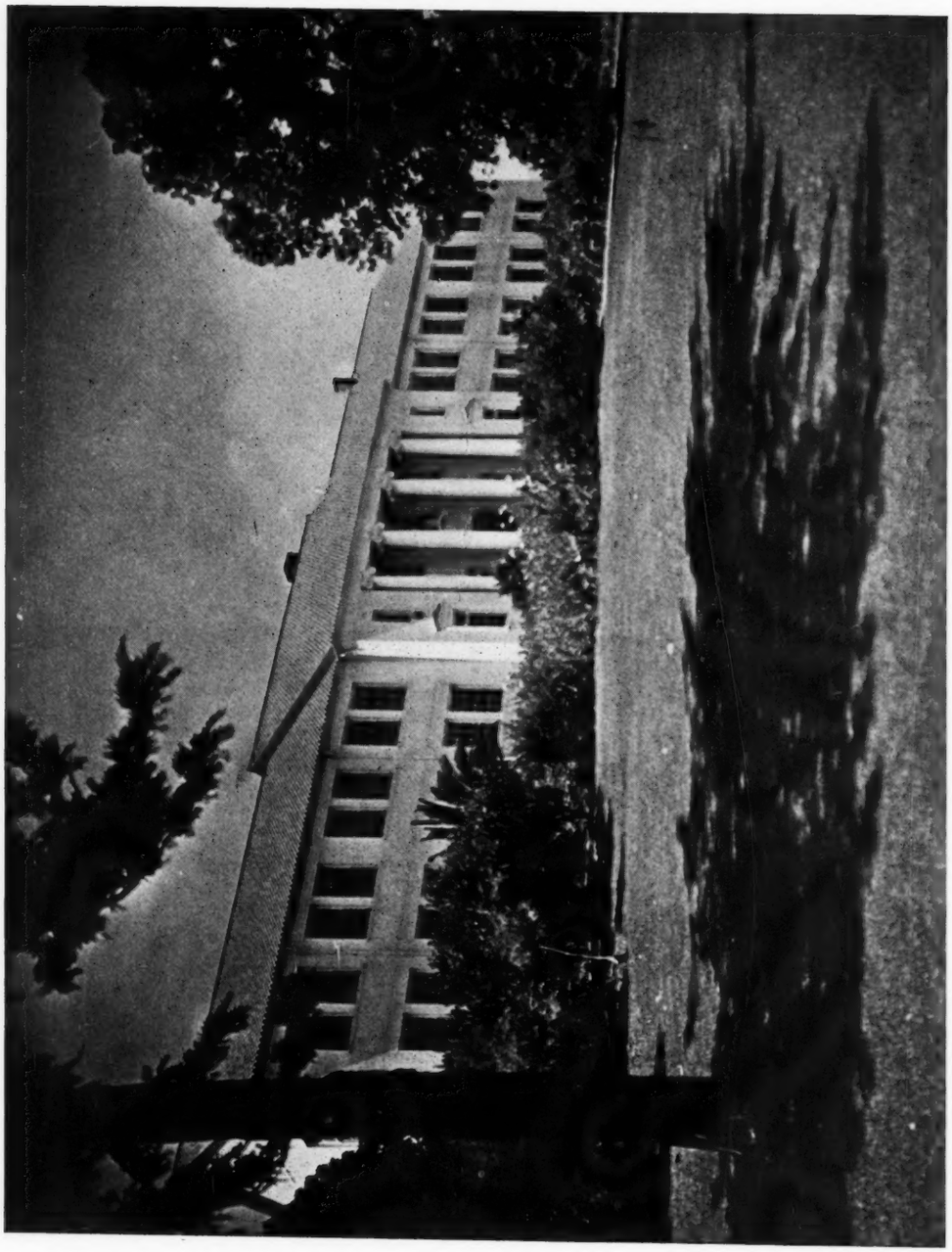
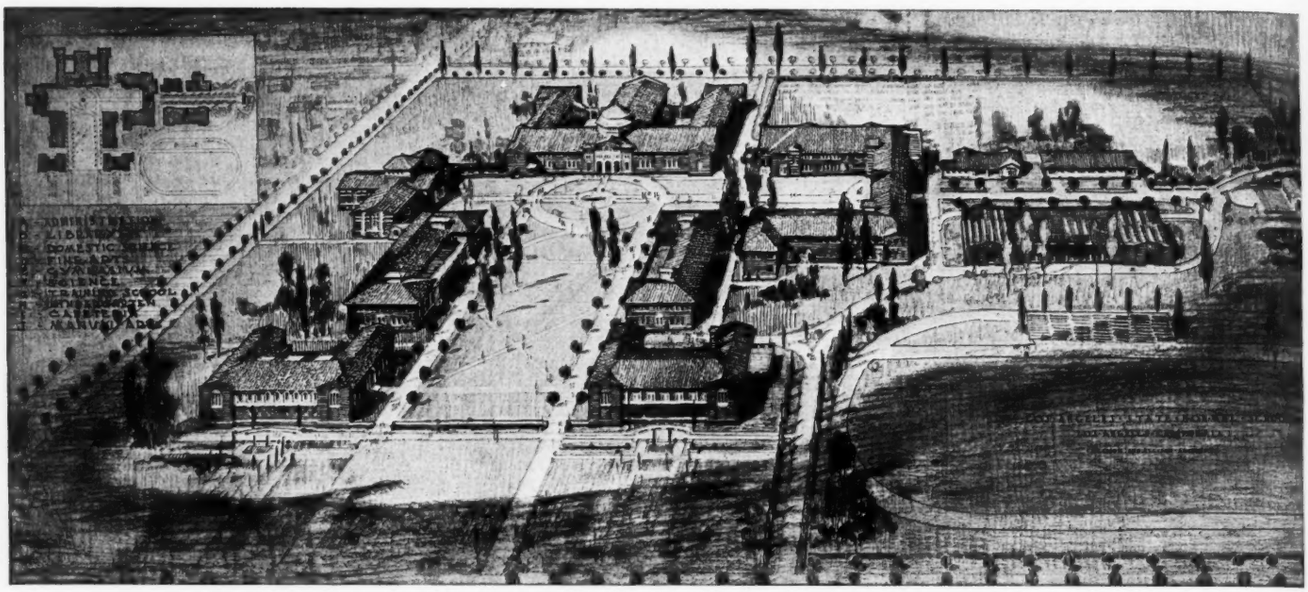
UNION HIGH SCHOOL,
SANTA MARIA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



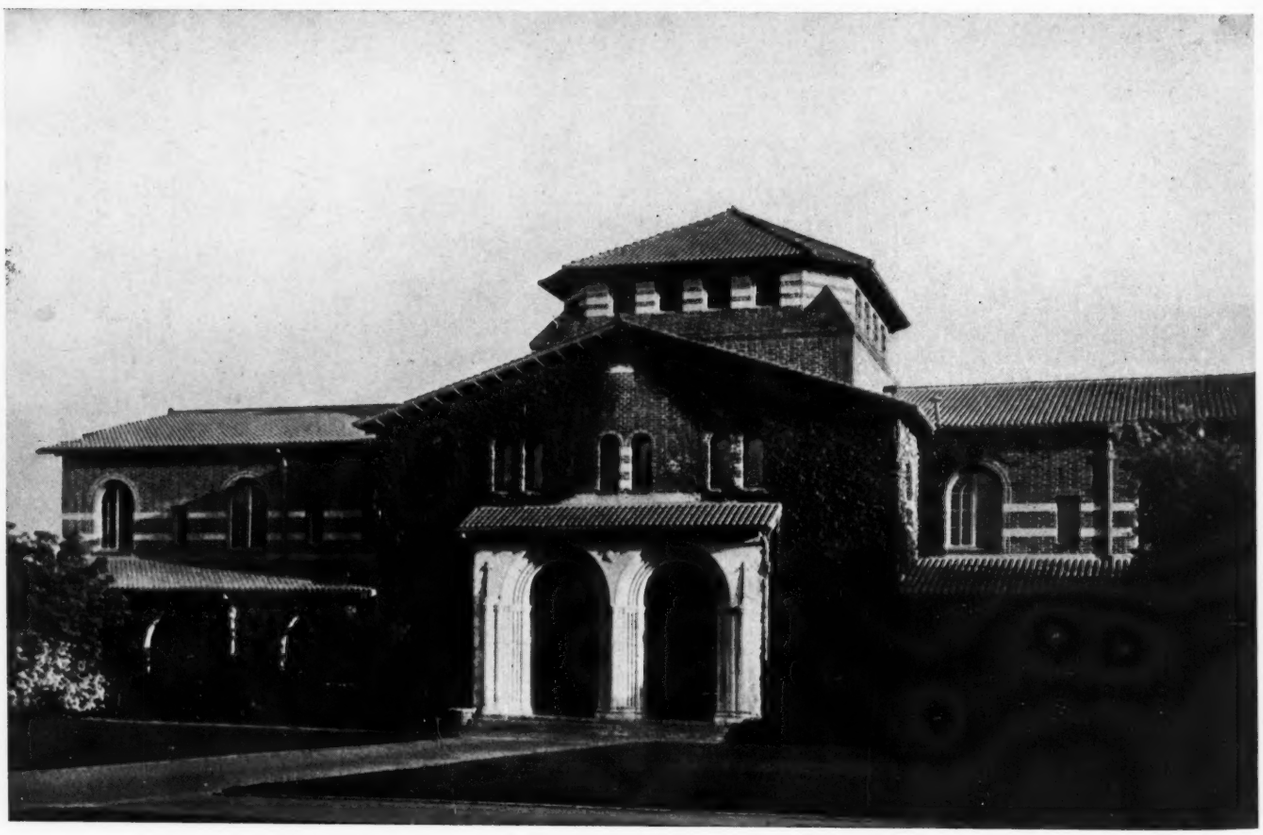
HIGH SCHOOL,
SANTA PAULA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

UNIV OF MICH

WILD ROSE ELEMENTARY SCHOOL,
MONROVIA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

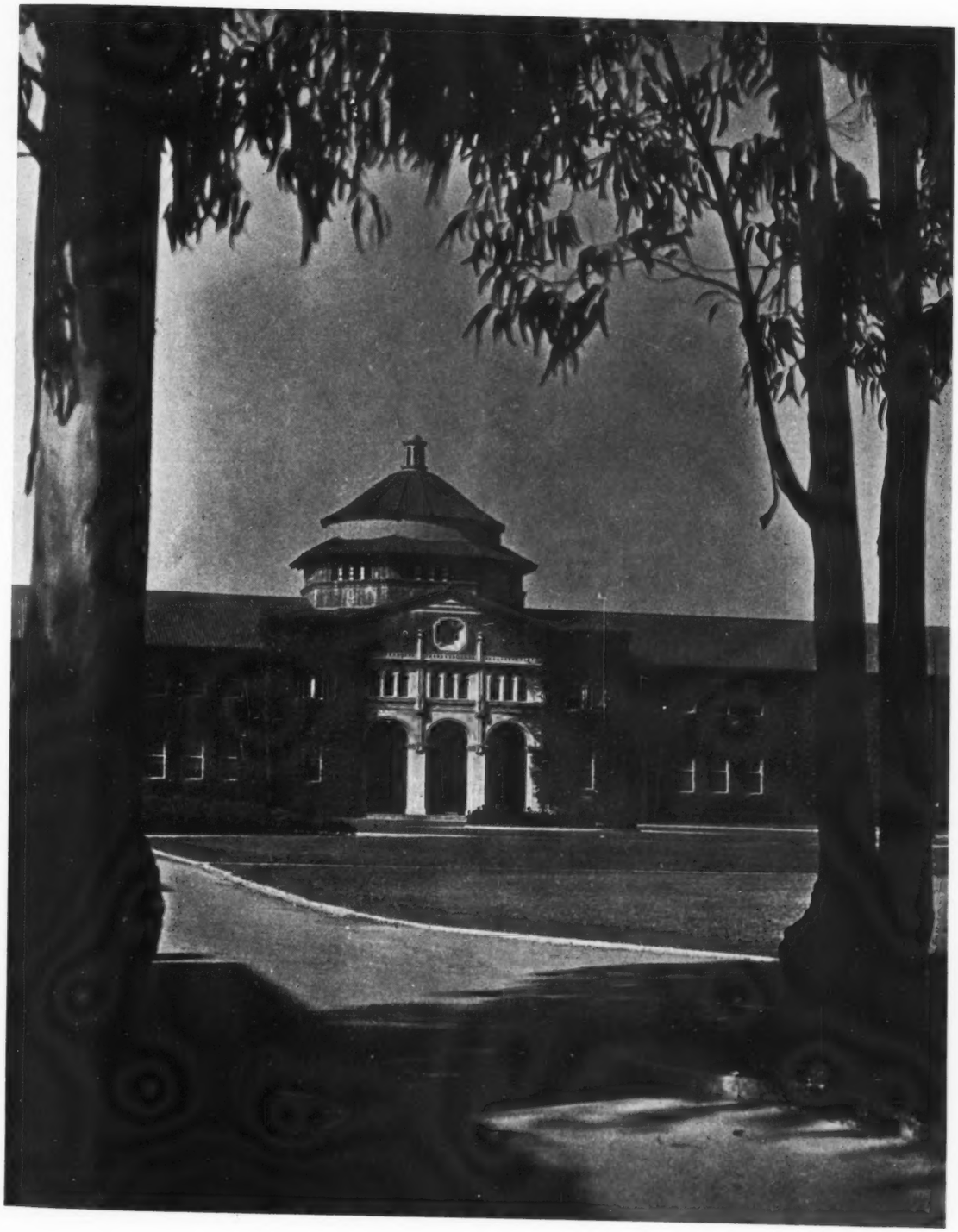


PERSPECTIVE,
LOS ANGELES STATE NORMAL SCHOOL.



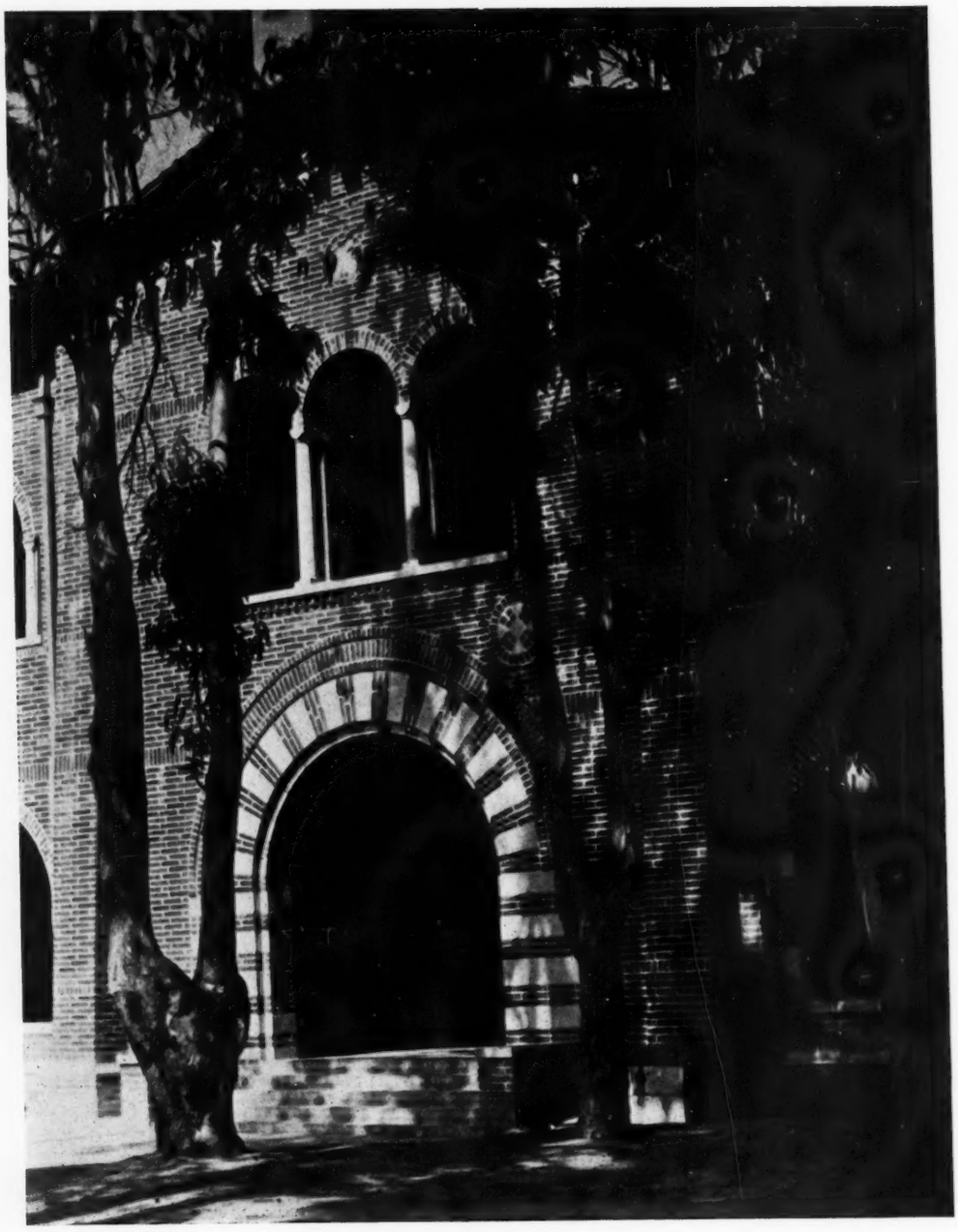
UNIV. OF MICH.

LIBRARY,
UNIVERSITY OF CALIFORNIA (Southern Branch)
LOS ANGELES, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



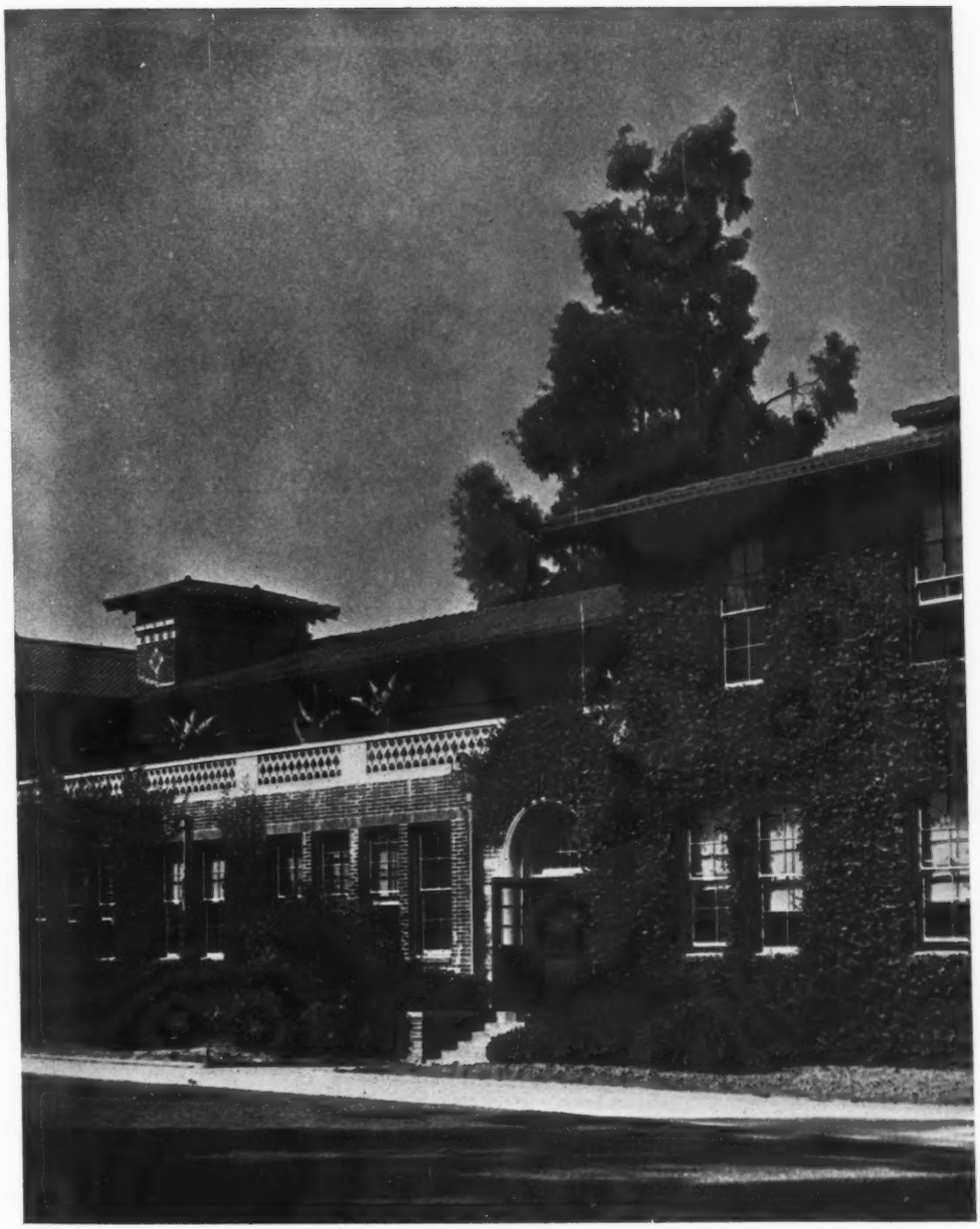
MILLSPAUGH HALL,
UNIVERSITY OF CALIFORNIA (Southern Branch)
LOS ANGELES, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

UNIV. OF MICH.

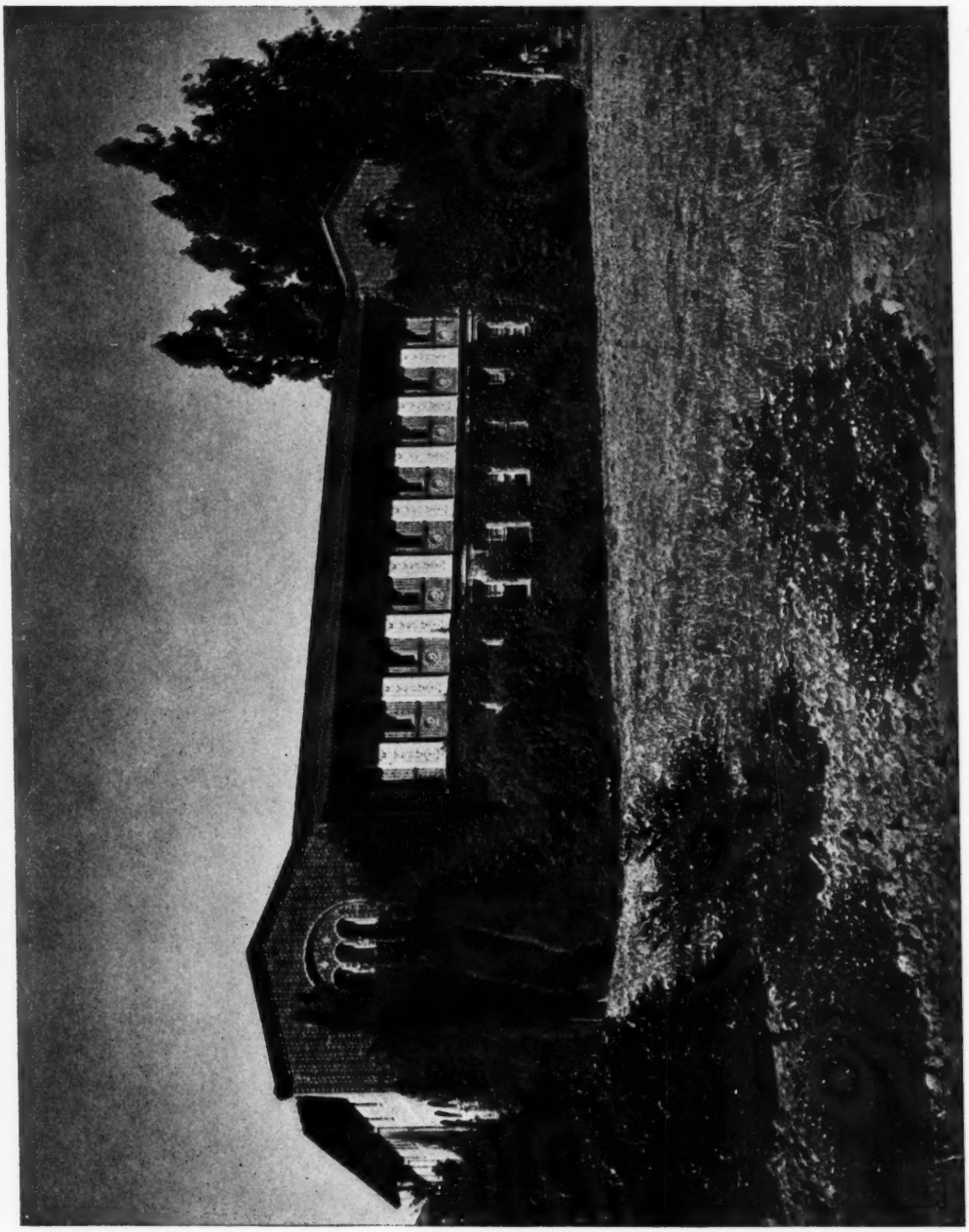


UNIV. OF MICH.

ENTRANCE TO TRAINING SCHOOL,
UNIVERSITY OF CALIFORNIA (Southern Branch)
LOS ANGELES, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



SCIENCE BUILDING,
UNIVERSITY OF CALIFORNIA (Southern Branch)
LOS ANGELES, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



UNIV. OF MICH.

FINE ARTS BUILDING,
UNIVERSITY OF CALIFORNIA (Southern Branch)
LOS ANGELES, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

LIBRARY FROM CLOISTER,
UNIVERSITY OF CALIFORNIA
(SOUTHERN BRANCH)
LOS ANGELES, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

"SCIENCE"

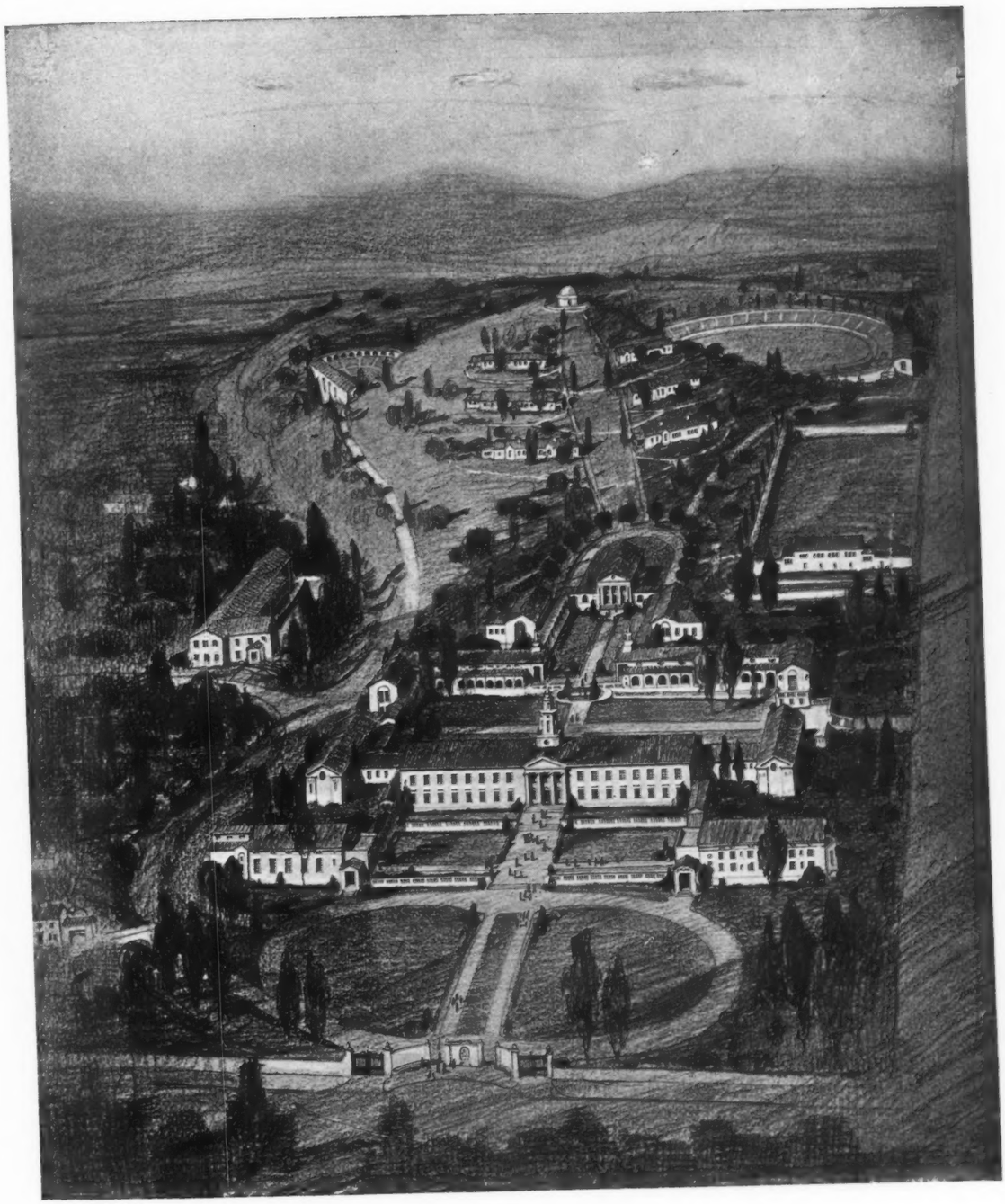
"DOMESTIC ARTS"

"DOMESTIC ARTS"

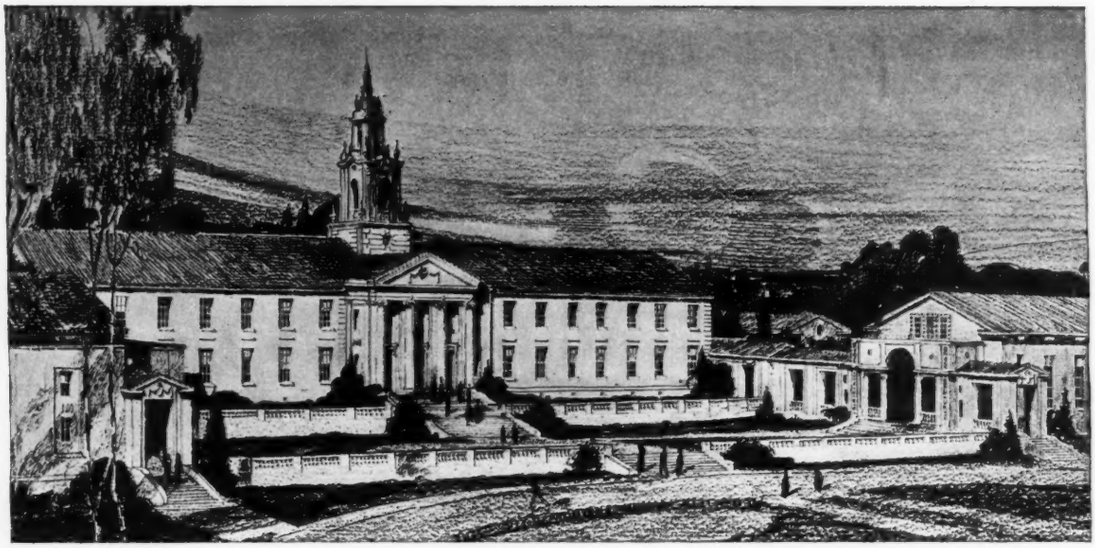
"SCIENCE"

UNIV. OF MICH.

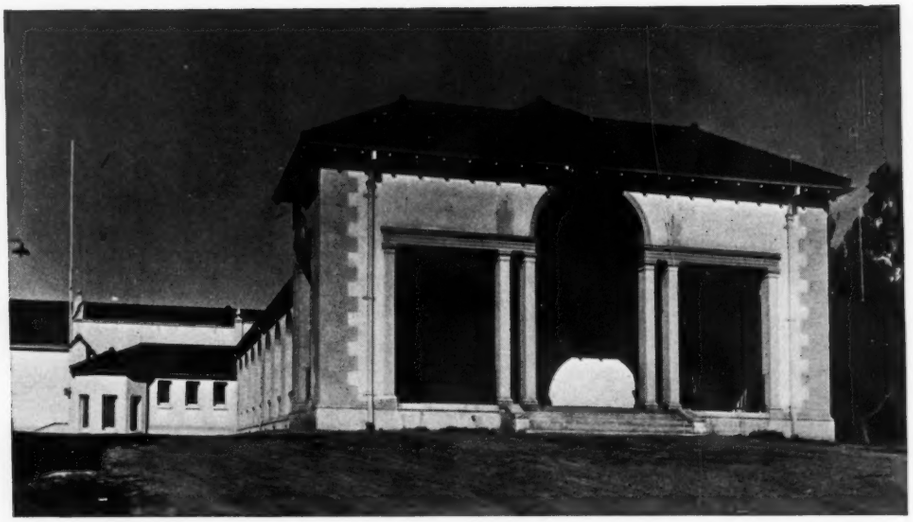
MEDALLIONS,
UNIVERSITY OF CALIFORNIA
(SOUTHERN BRANCH),
LOS ANGELES, CALIFORNA
ALLISON & ALLISON, ARCHITECTS



GREATER WHITTIER COLLEGE,
WHITTIER, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

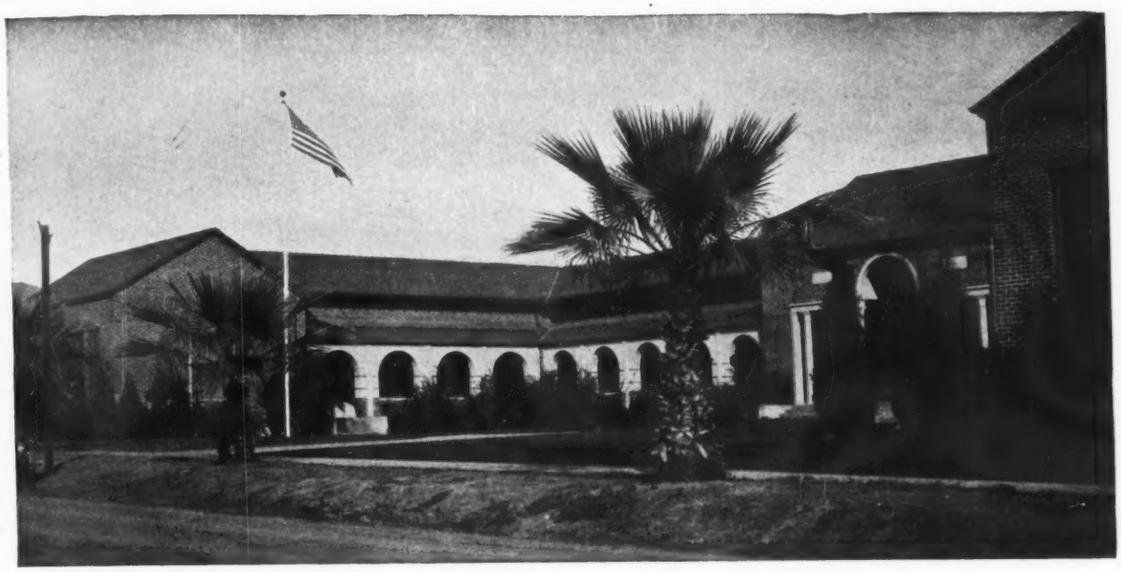


FORECOURT,
WHITTIER COLLEGE,
WHITTIER, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

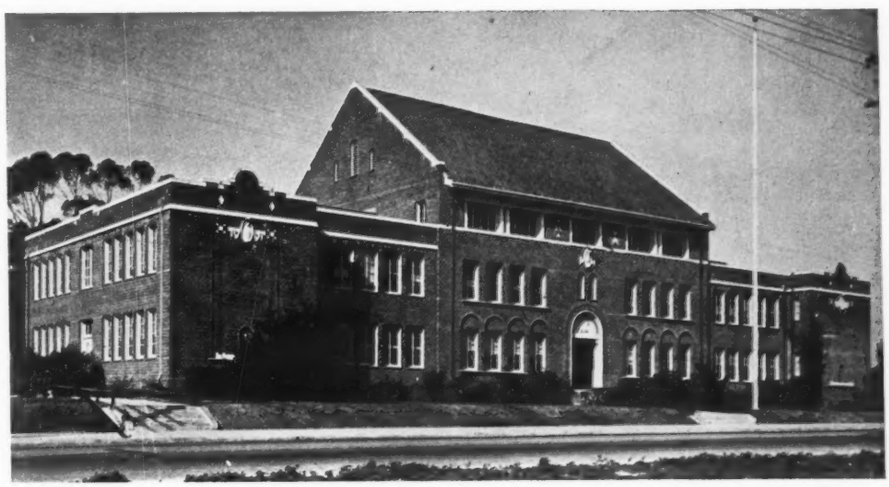


UNIV. OF

LOGGIA, NAYLOR HALL,
WHITTIER COLLEGE,
WHITTIER, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

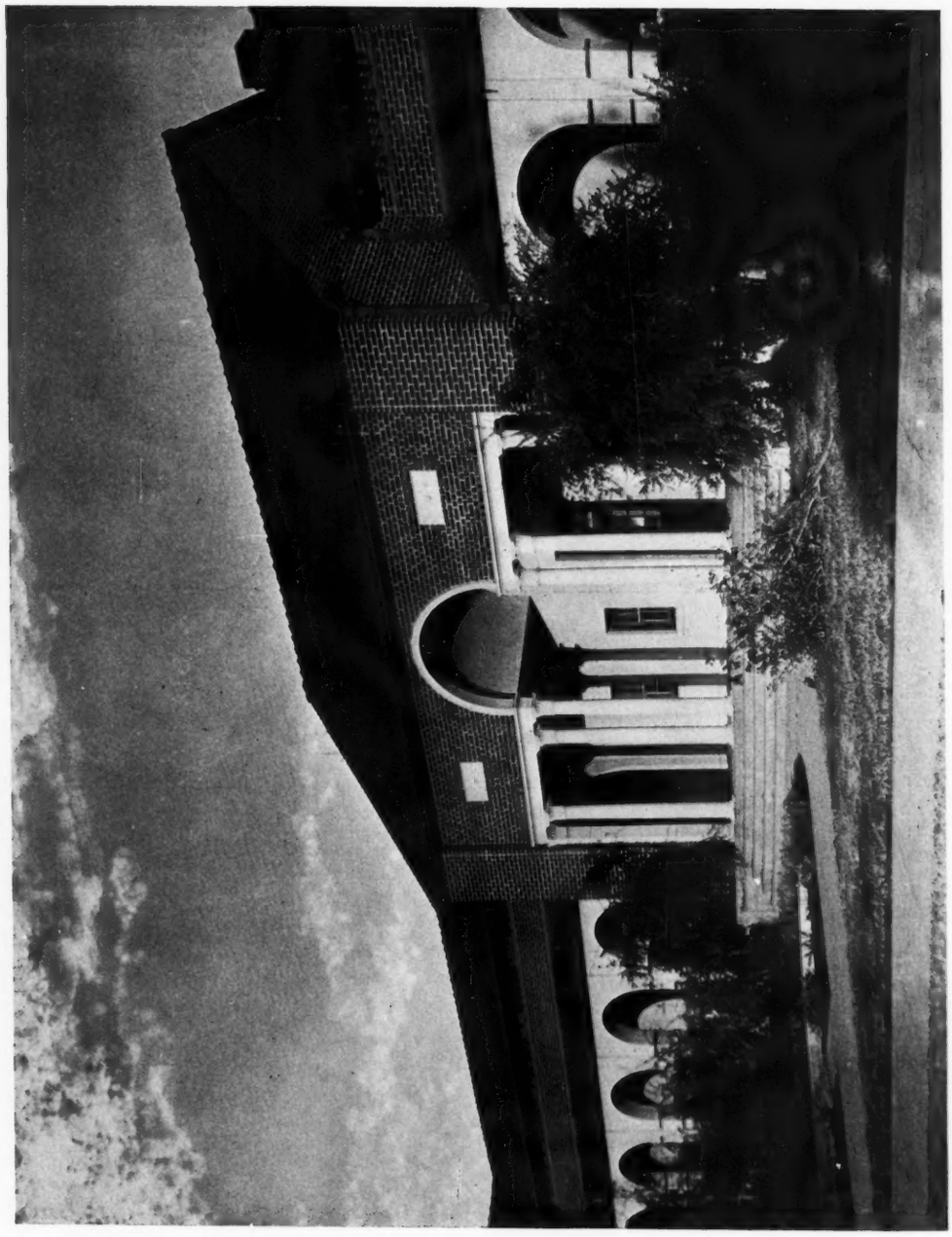


ELEMENTARY SCHOOL NUMBER 1,
GLENDORA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



UNIV. OF MICH.

WILMINGTON HIGH SCHOOL,
LOS ANGELES, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



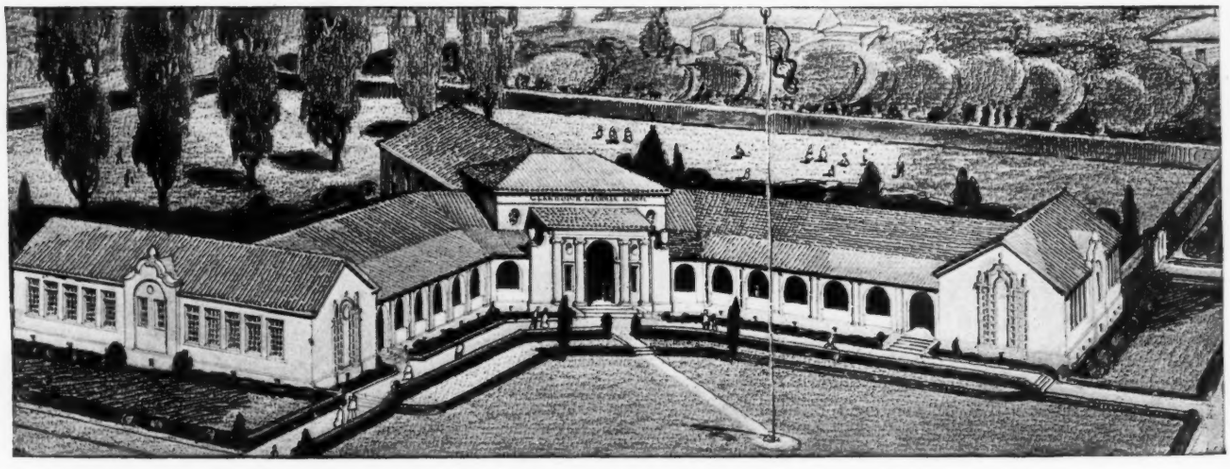
UNIV. OF

ELEMENTARY SCHOOL NUMBER 1,
GLENDORA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

UNIV. OF MICH.

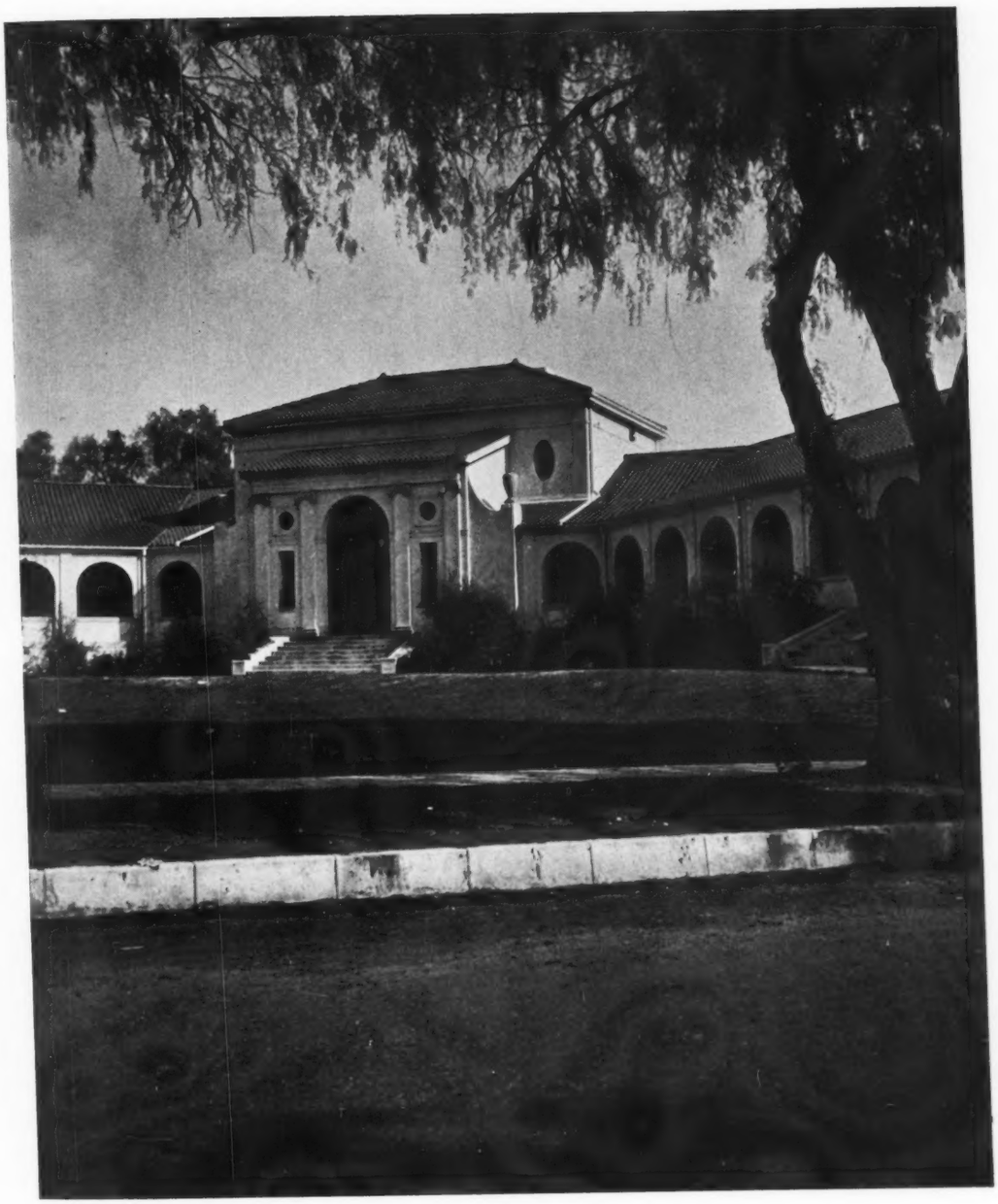
LOGGIA DETAIL,
ELEMENTARY SCHOOL NUMBER 1,
GLENDORA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

ELEMENTARY SCHOOL NUMBER 1,
GLENDORA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



U. OF MICH.

ELEMENTARY SCHOOL NUMBER 2
GLENDORA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

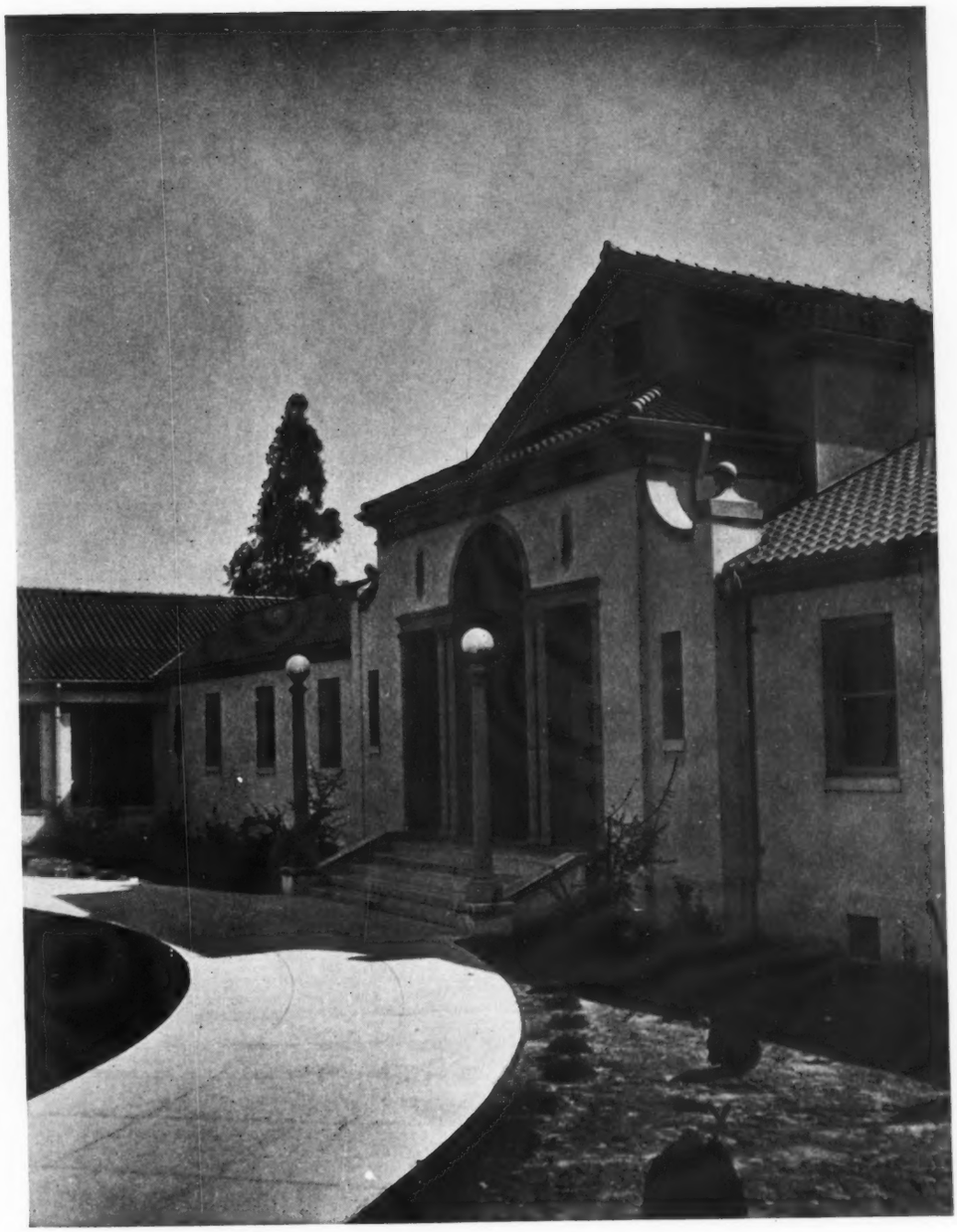


UNIV. OF MICH.

ELEMENTARY SCHOOL NUMBER 2
GLENDORA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

NYC F 1041

ELEMENTARY SCHOOL NUMBER 2
AZUSA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



UNIV. OF MICH.

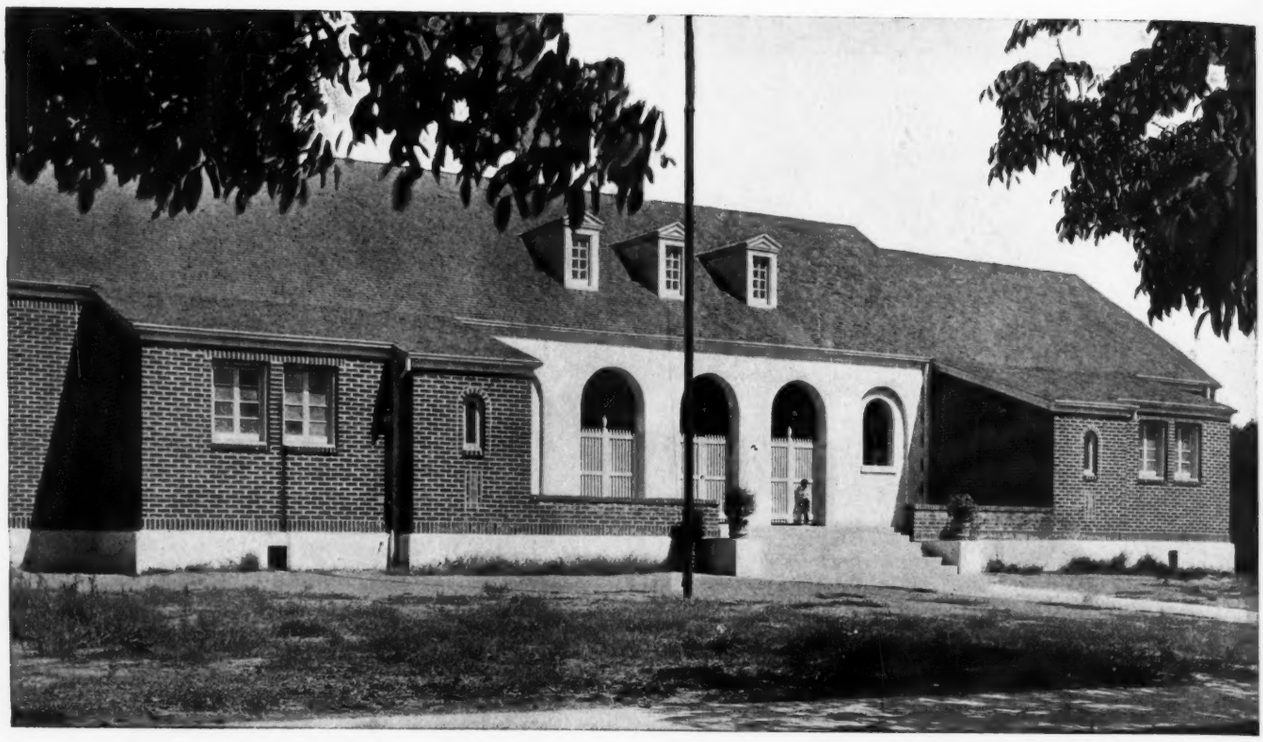
ÉLEMENTARY SCHOOL NUMBER 2,
AZUSA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

U. OF MICH.

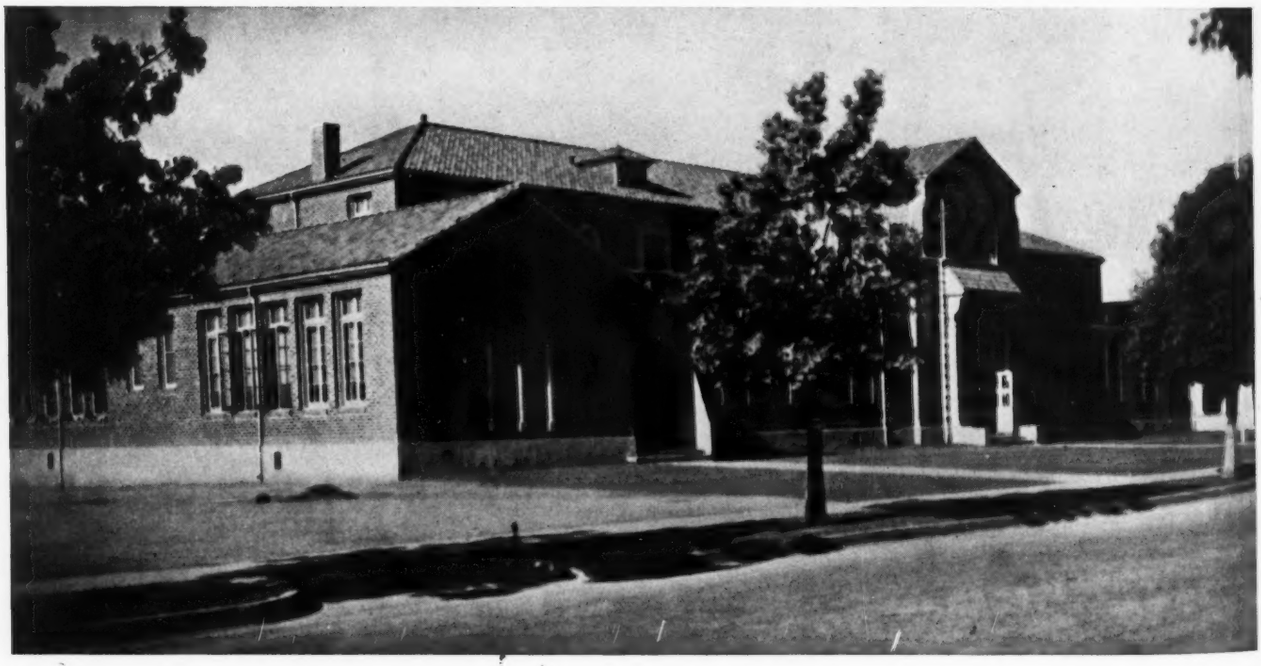
ELEMENTARY SCHOOL,
OXNARD, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

UNIV. OF MICH.

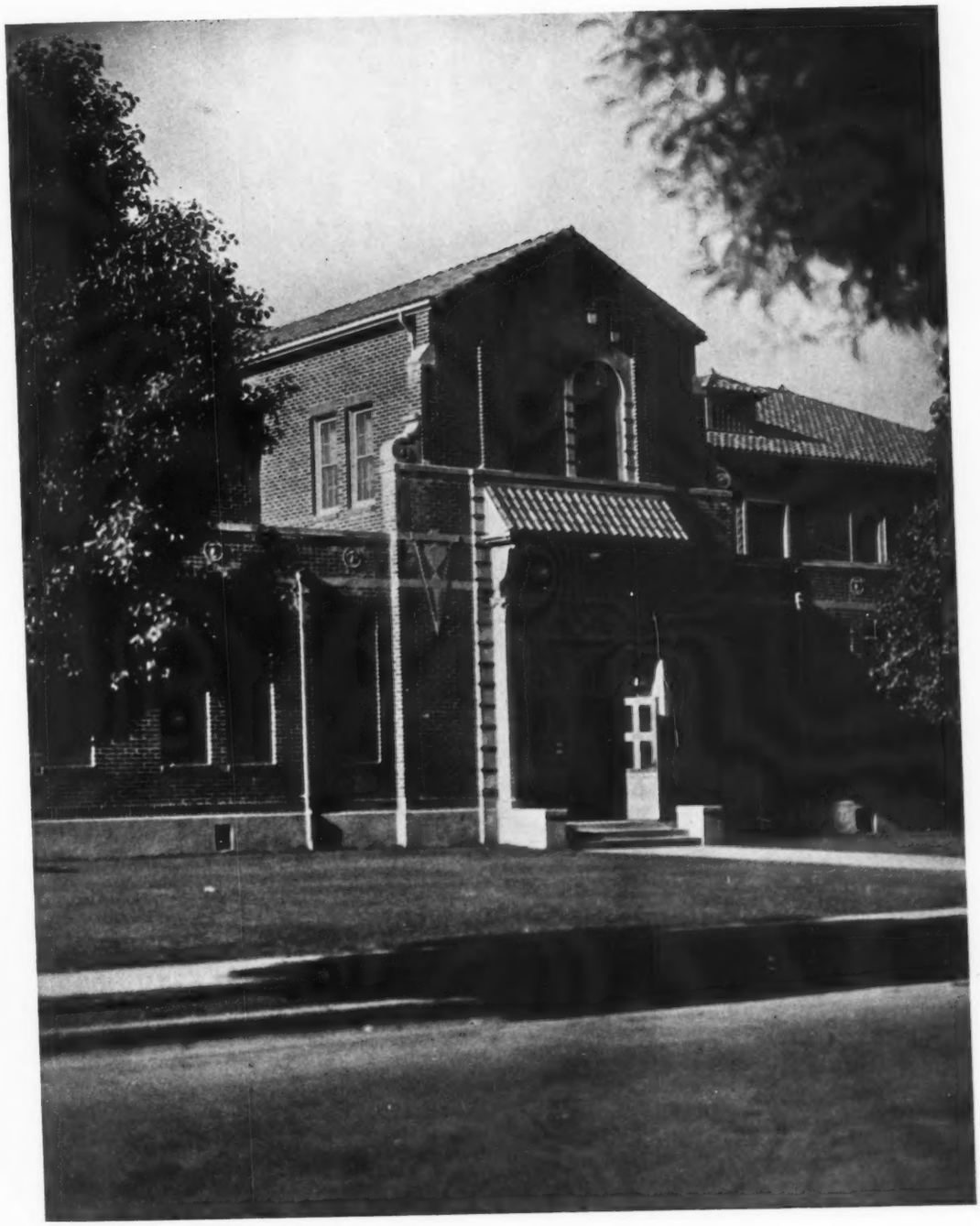
GENERAL VIEW,
YNEZ SCHOOL,
ALHAMBRA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



MARENGO PRIMARY SCHOOL
ALHAMBRA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



CENTRAL ELEMENTARY SCHOOL
ALHAMBRA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

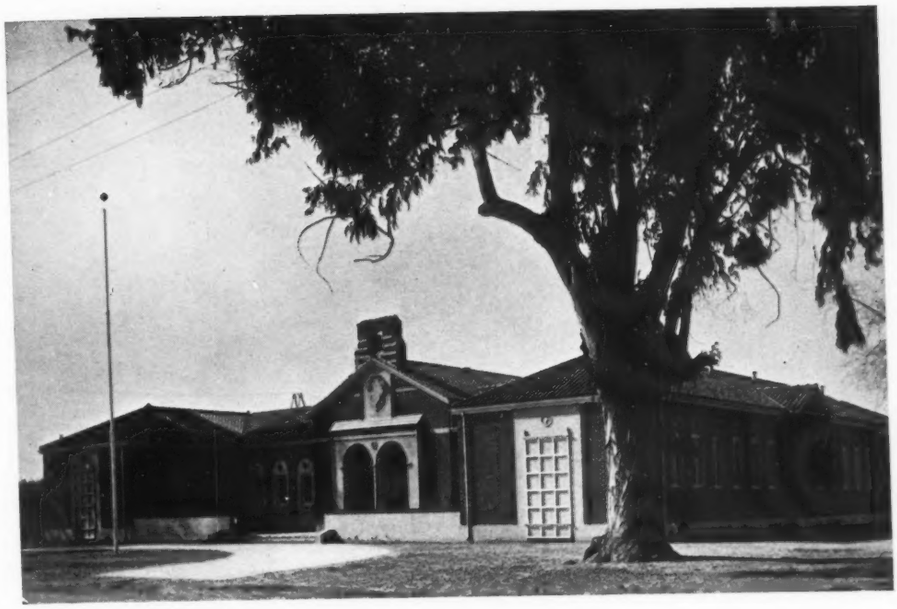


DETAIL,
CENTRAL ELEMENTARY SCHOOL,
ALHAMBRA, CALIFORNIA
ALLISON AND ALLISON, Architects

ELEMENTARY SCHOOL,
SPADRA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS

U. OF MICH.

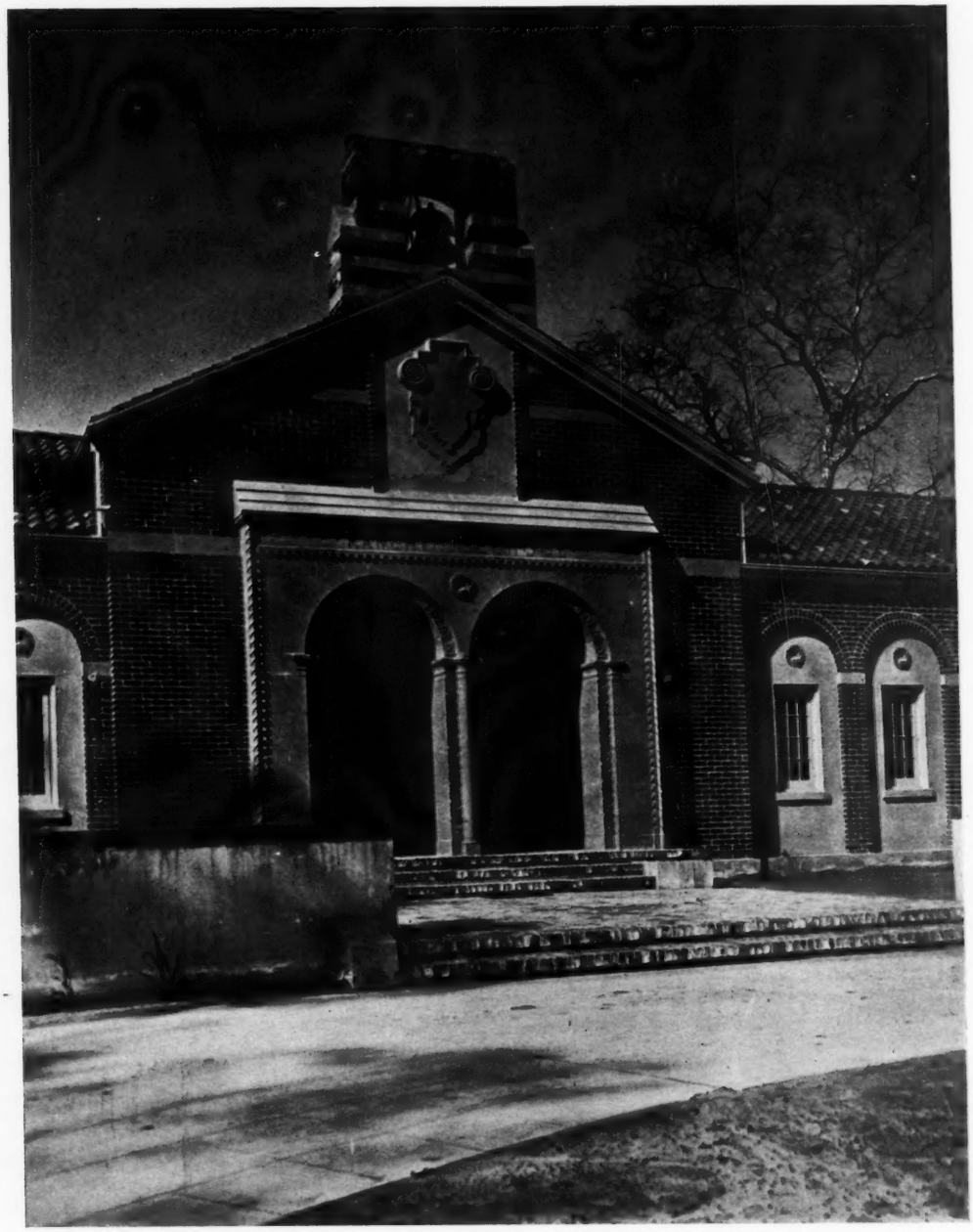
DETAIL,
ELEMENTARY SCHOOL,
SPADRA, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



ELEMENTARY SCHOOL,
RANCHITO, CALIFORNIA,

UNIV. OF MICH.

ELEMENTARY SCHOOL,
LITTLE LAKE SCHOOL DISTRICT,
LOS ANGELES COUNTY, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS



UNIV. OF MICH.

ENTRANCE DETAIL,
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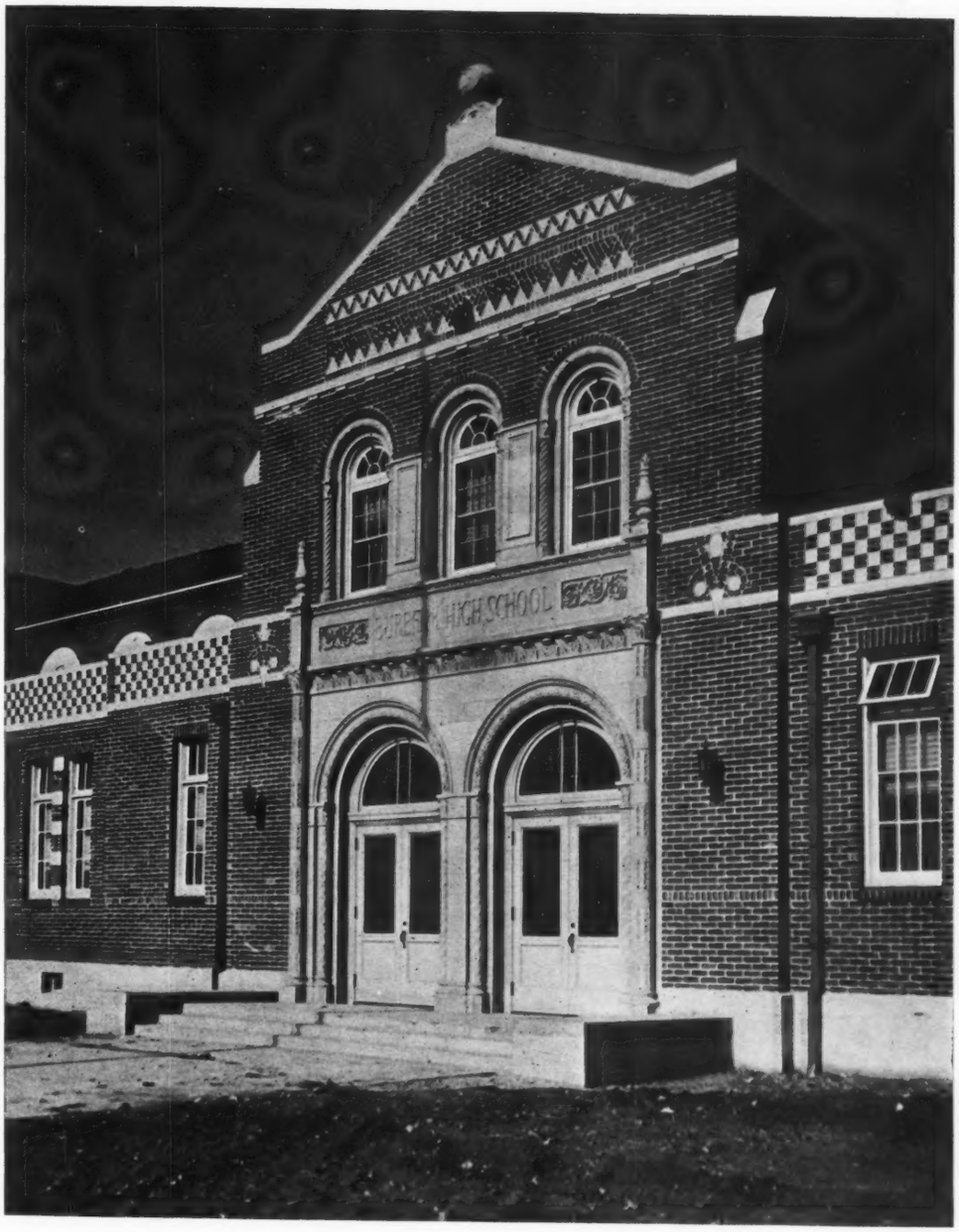
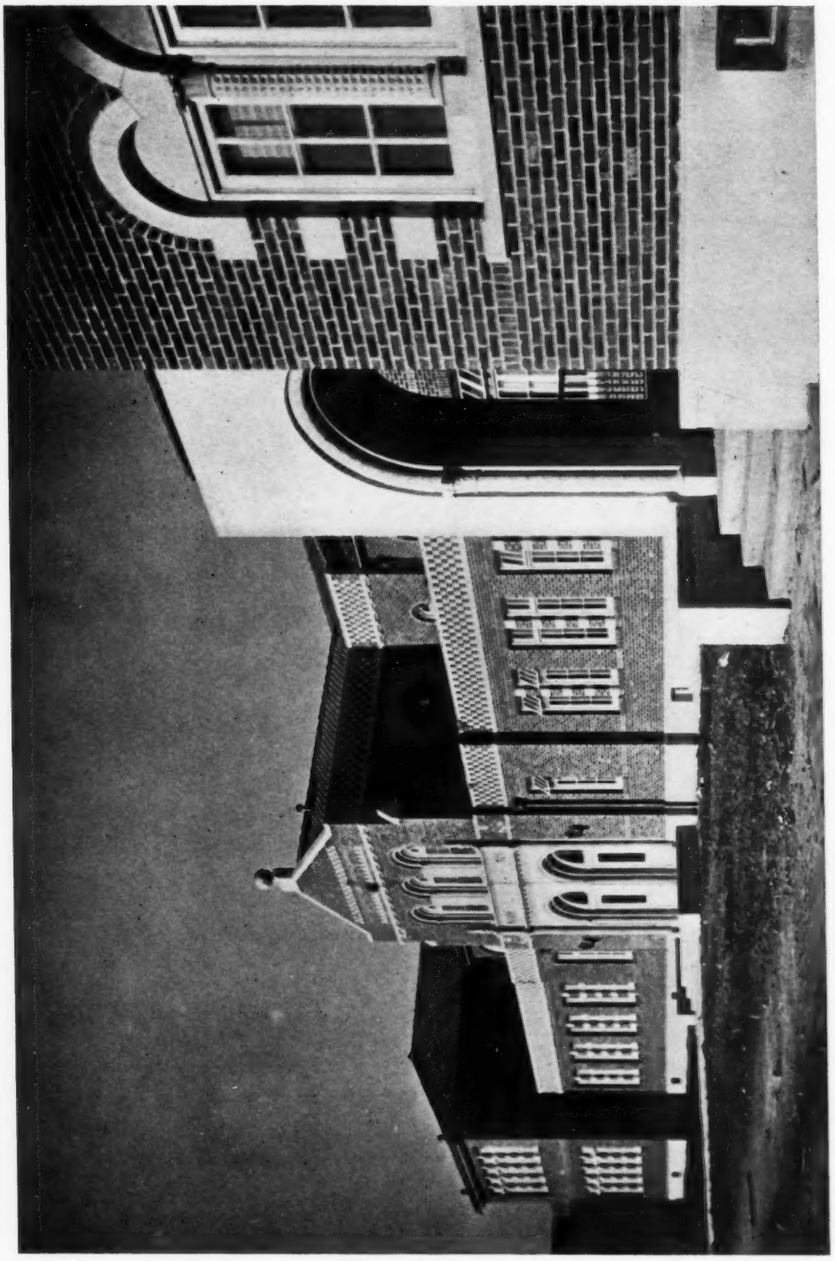
RANCHITO, CALIFORNIA,
ALLISON & ALLISON, ARCHITECTS.



UNIV. OF MICH.

ENTRANCE MOTIF,
HIGH SCHOOL,
BURBANK, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS.



N.Y.
F.
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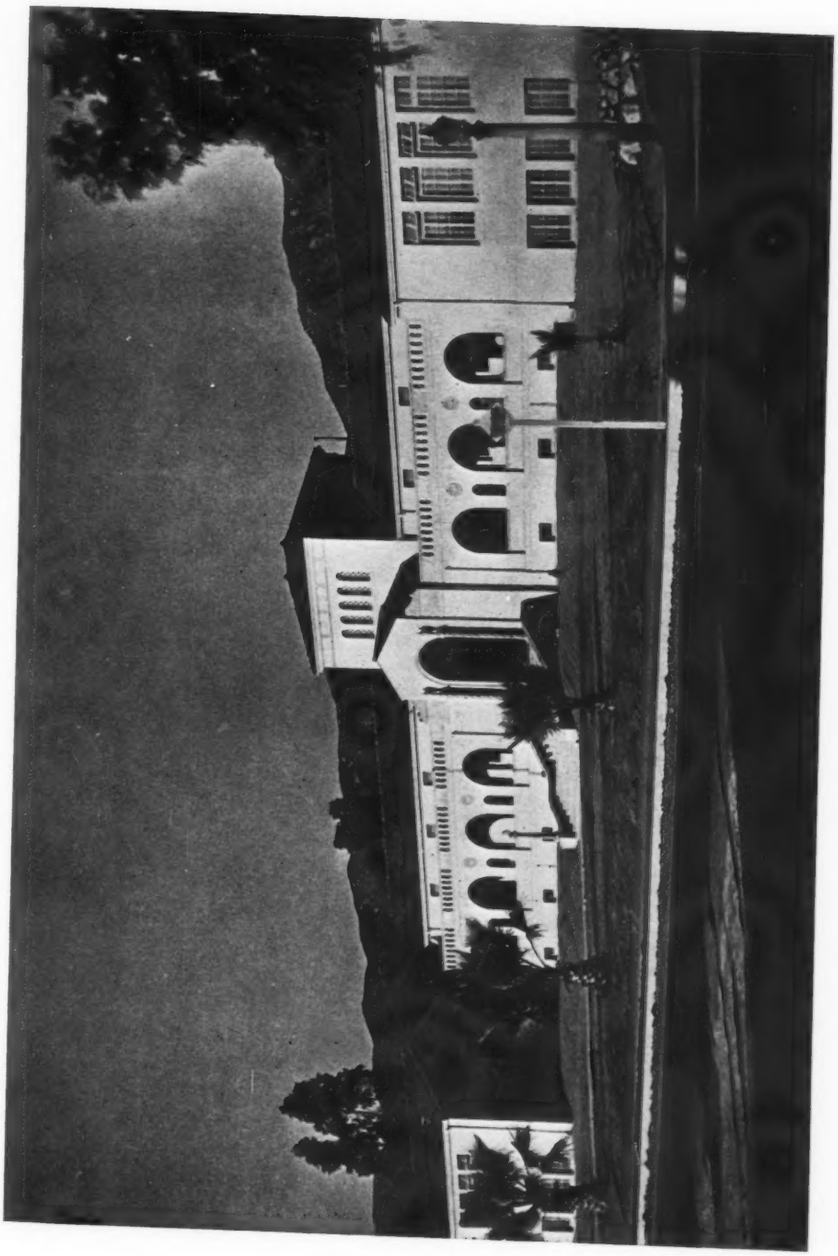
HIGH SCHOOL,
BURBANK, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS



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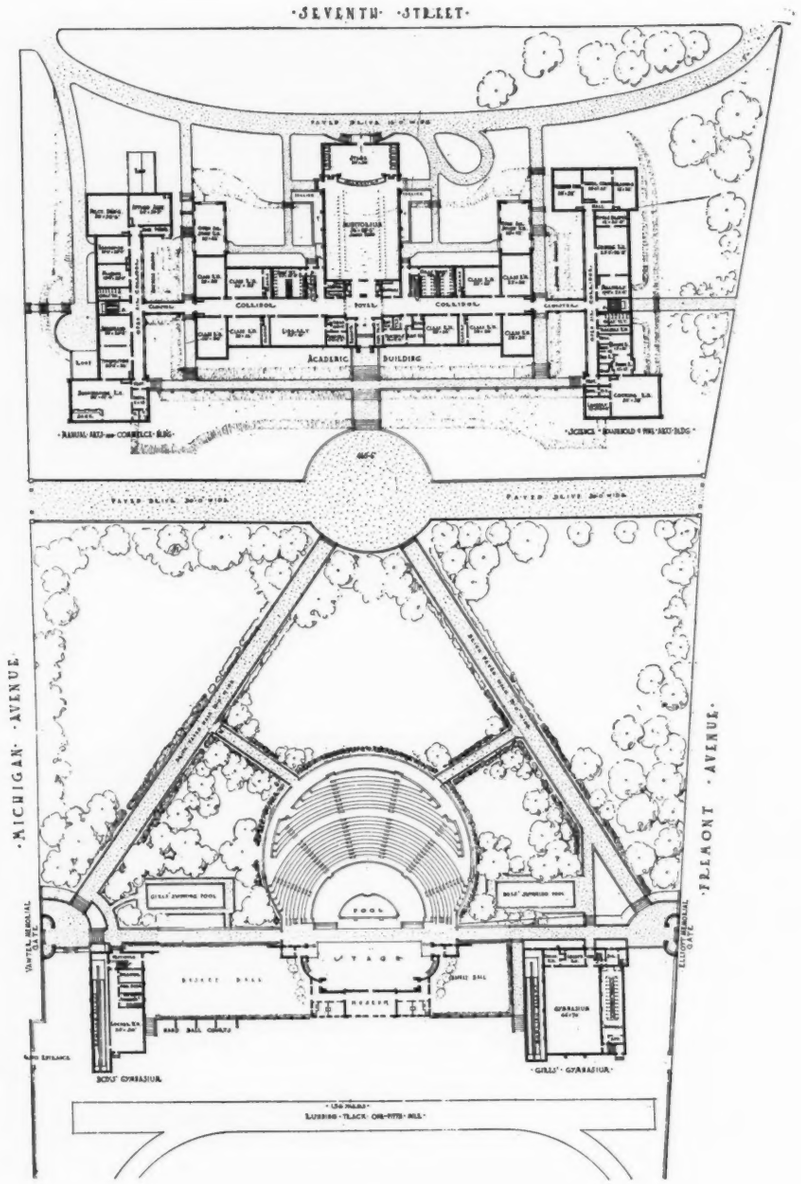
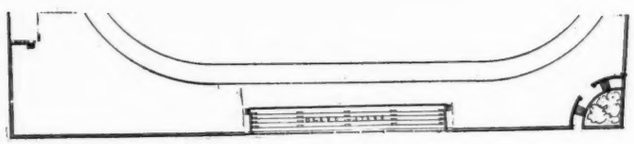
BURBANK, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS

UNIV. OF MICH.

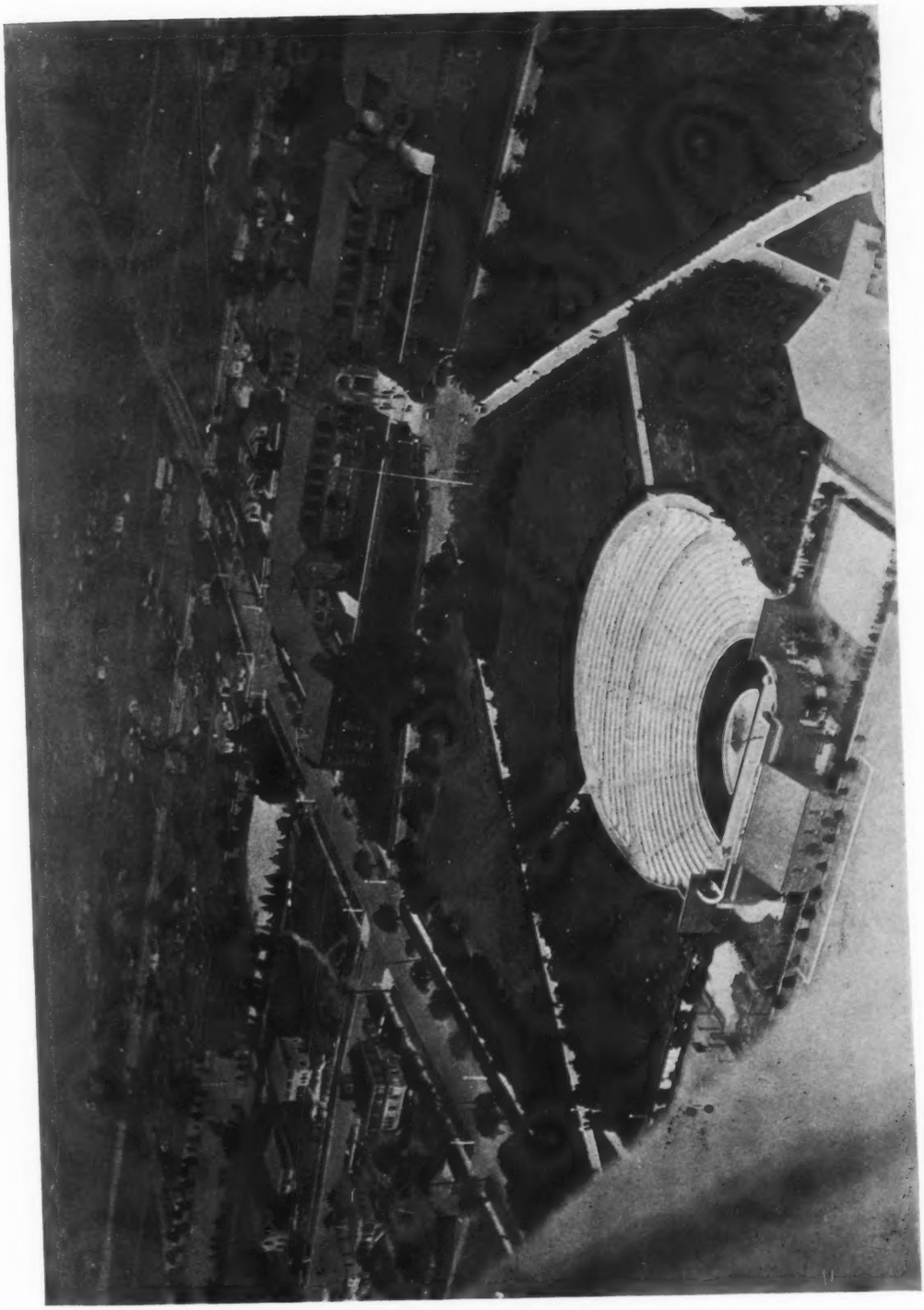


Plan of the
HIGH SCHOOL IN SANTA MONICA CALIF.
Allison and Allison Archts



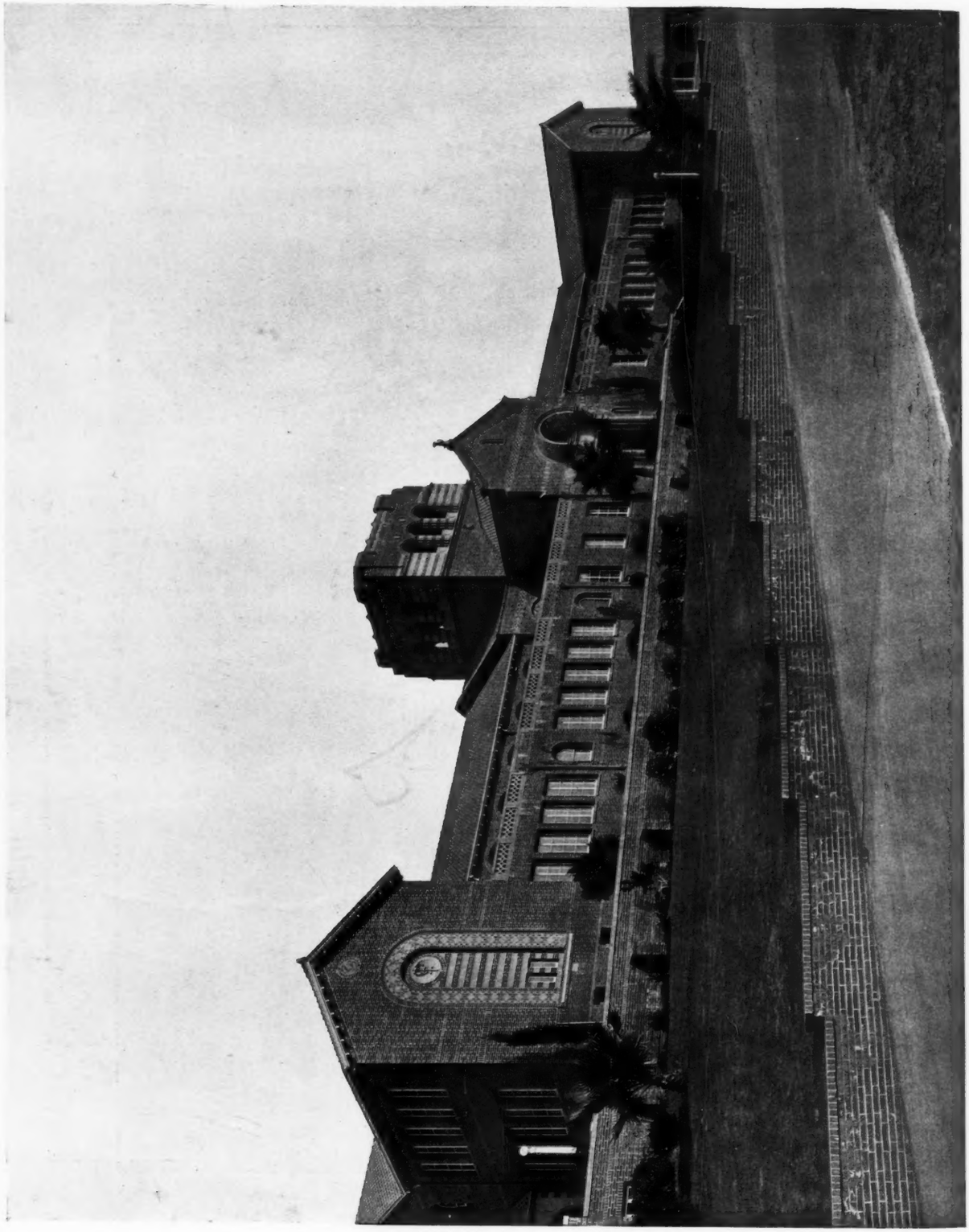
UNIV. OF MICH.

PLAN OF HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

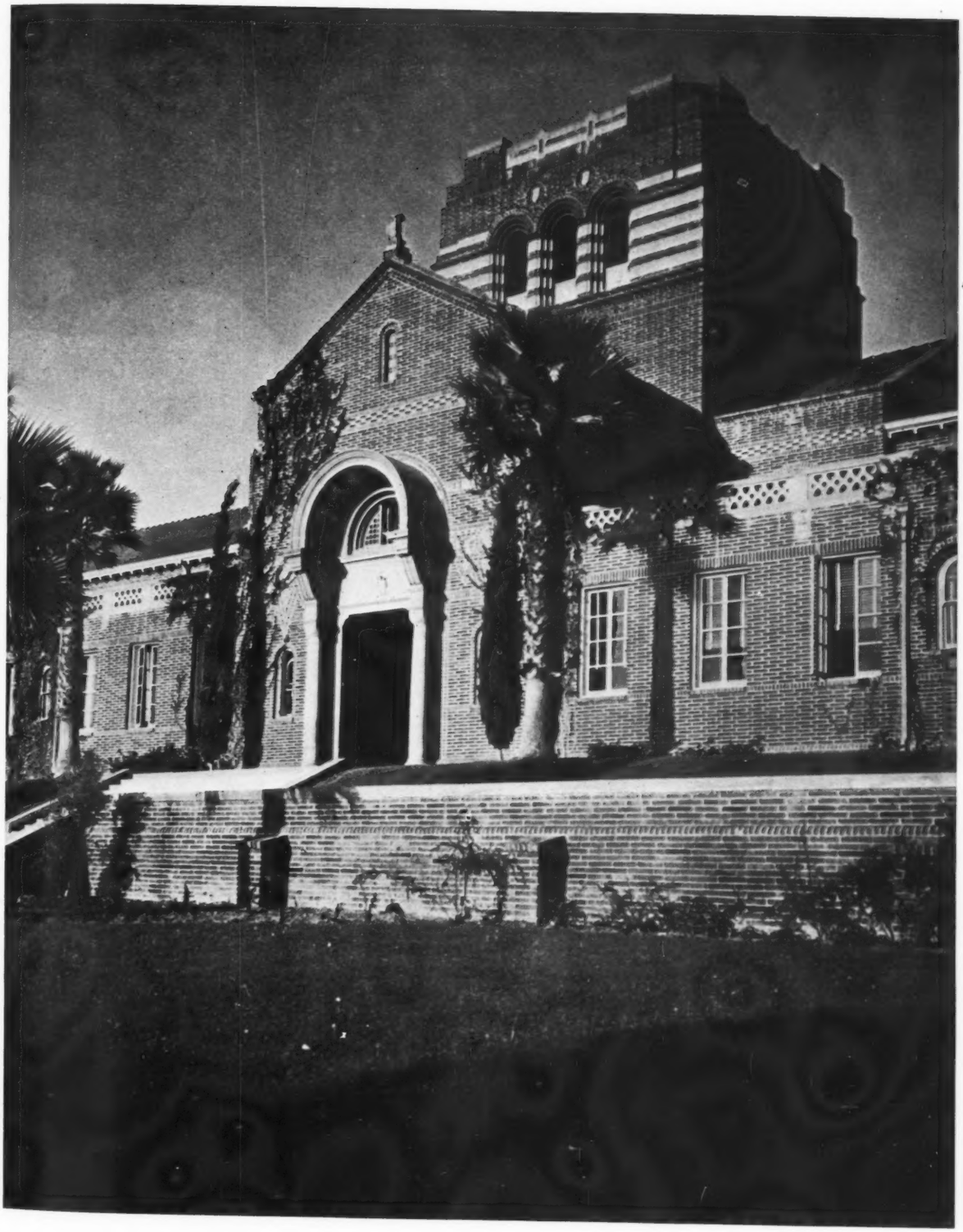


UNIV. OF MICH.

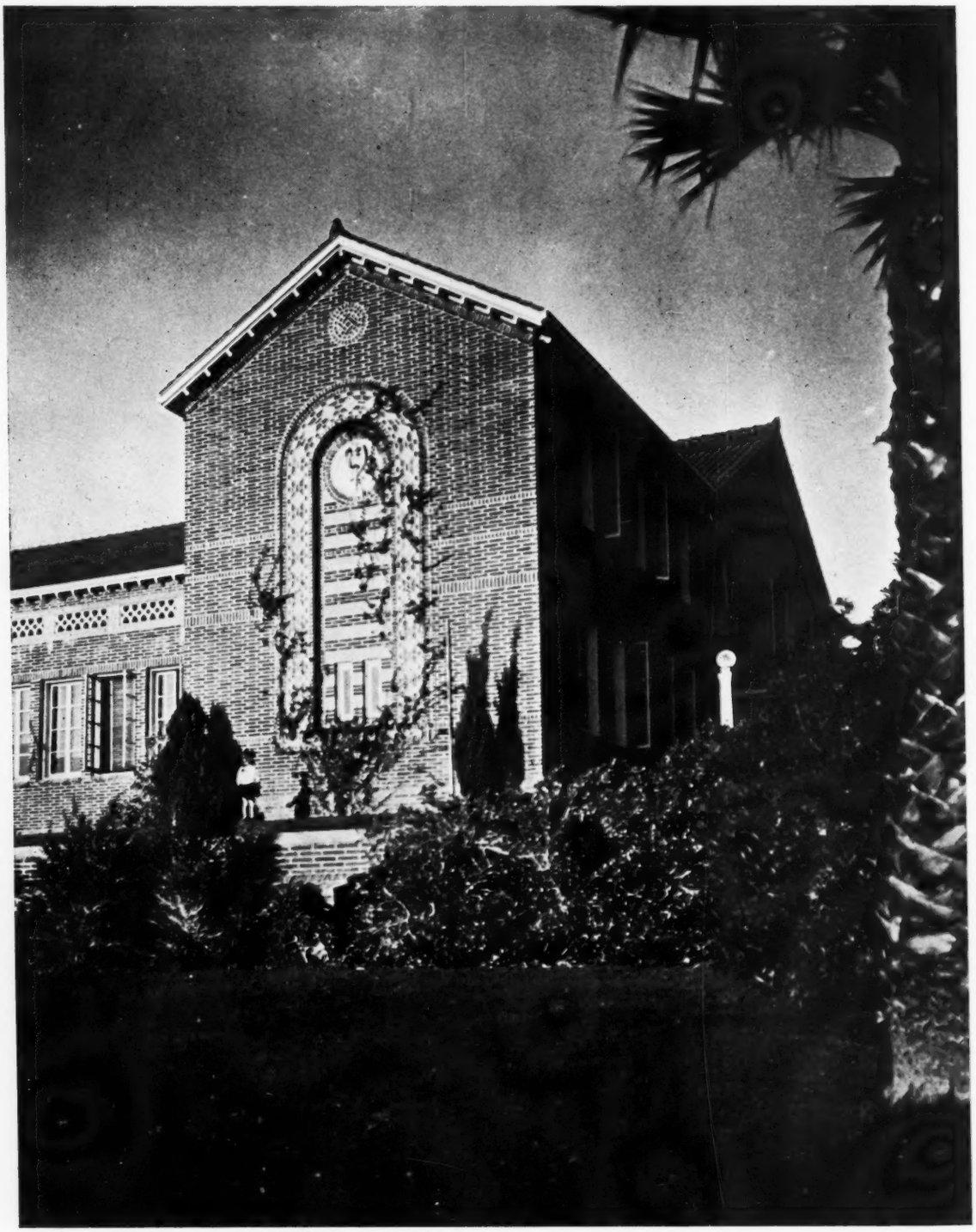
AIRPLANE VIEW,
HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



GENERAL VIEW,
SANTA MONICA HIGH SCHOOL,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS

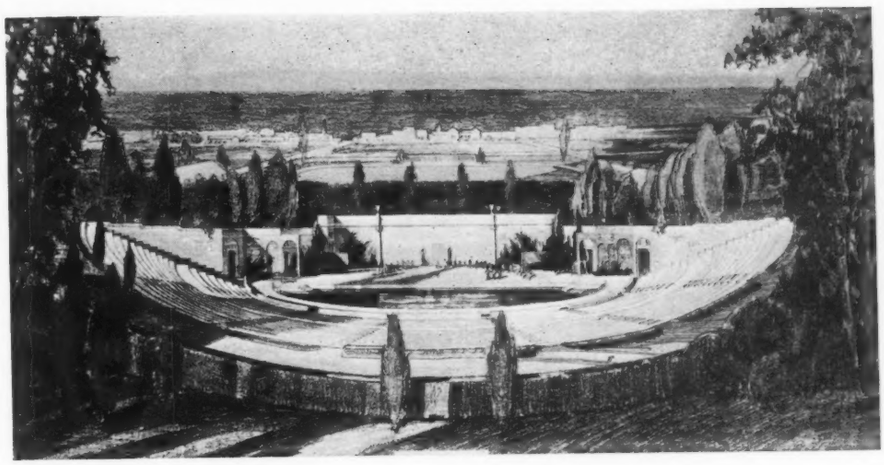


ENTRANCE AND TOWER,
HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS



END PAVILION,
HIGH SCHOOL,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

UNIV. OF

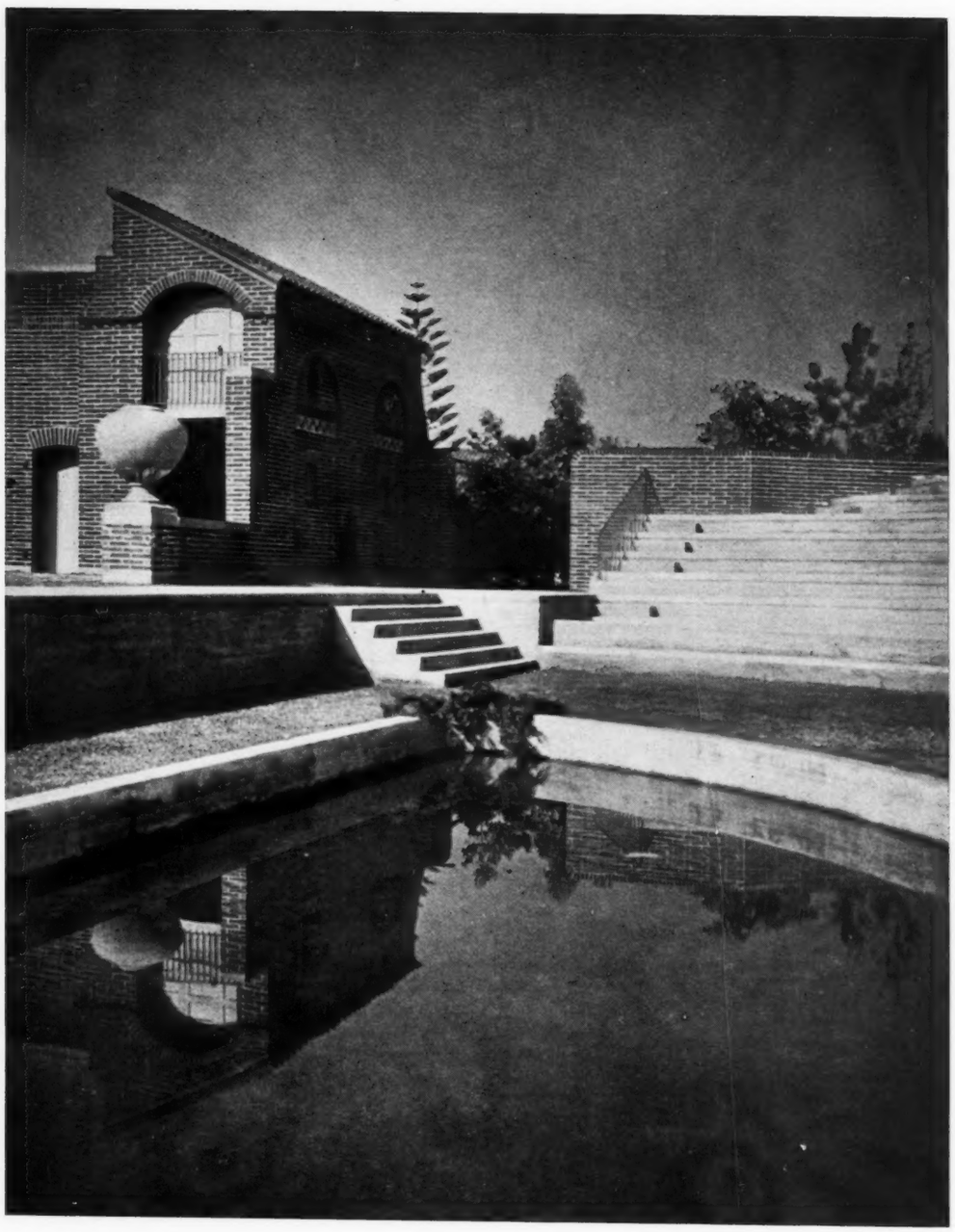


PERSPECTIVE SKETCH OF THE BOWL.

THE BOWL.

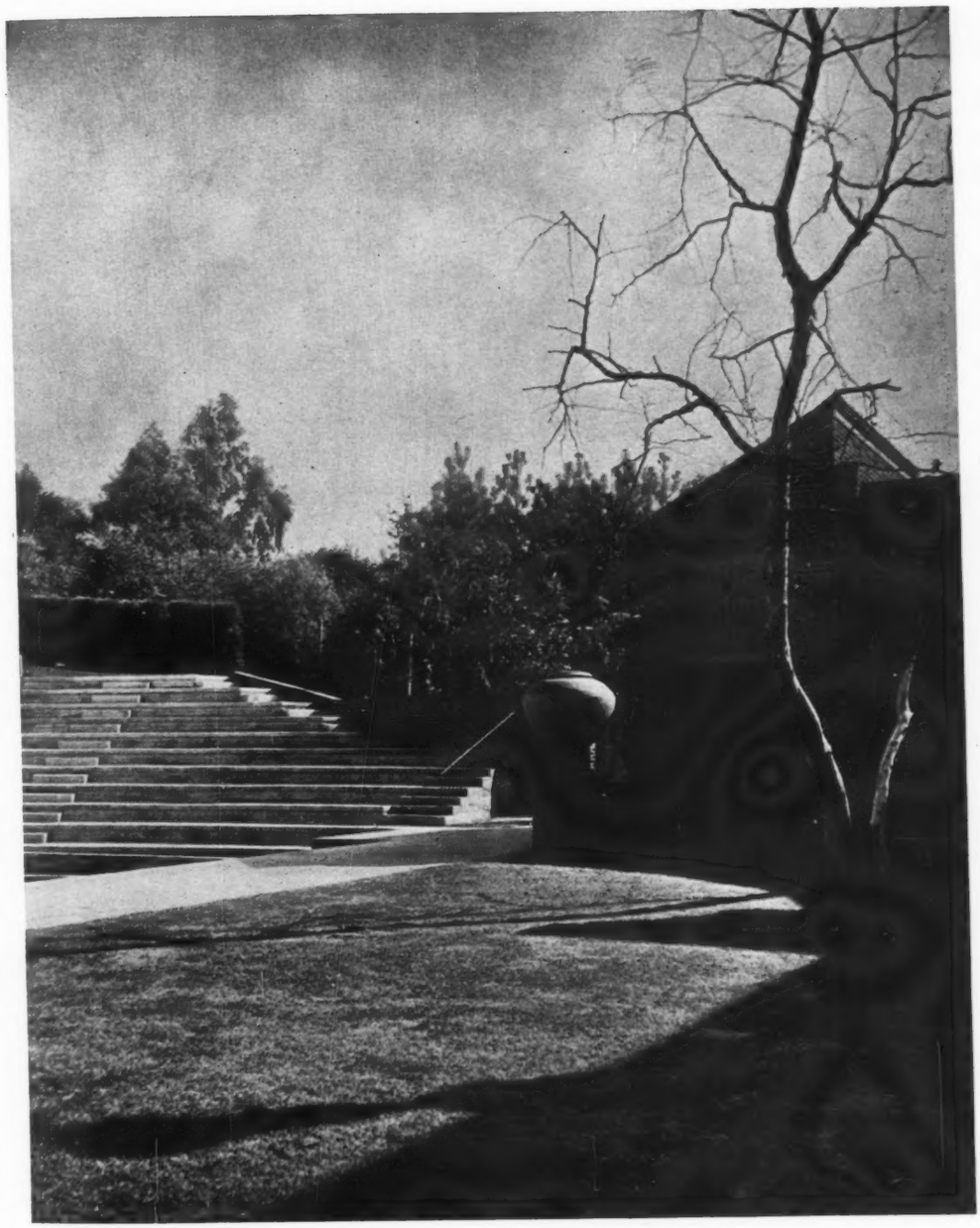
UNIV. OF

MEMORIAL OPEN AIR THEATER,
HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

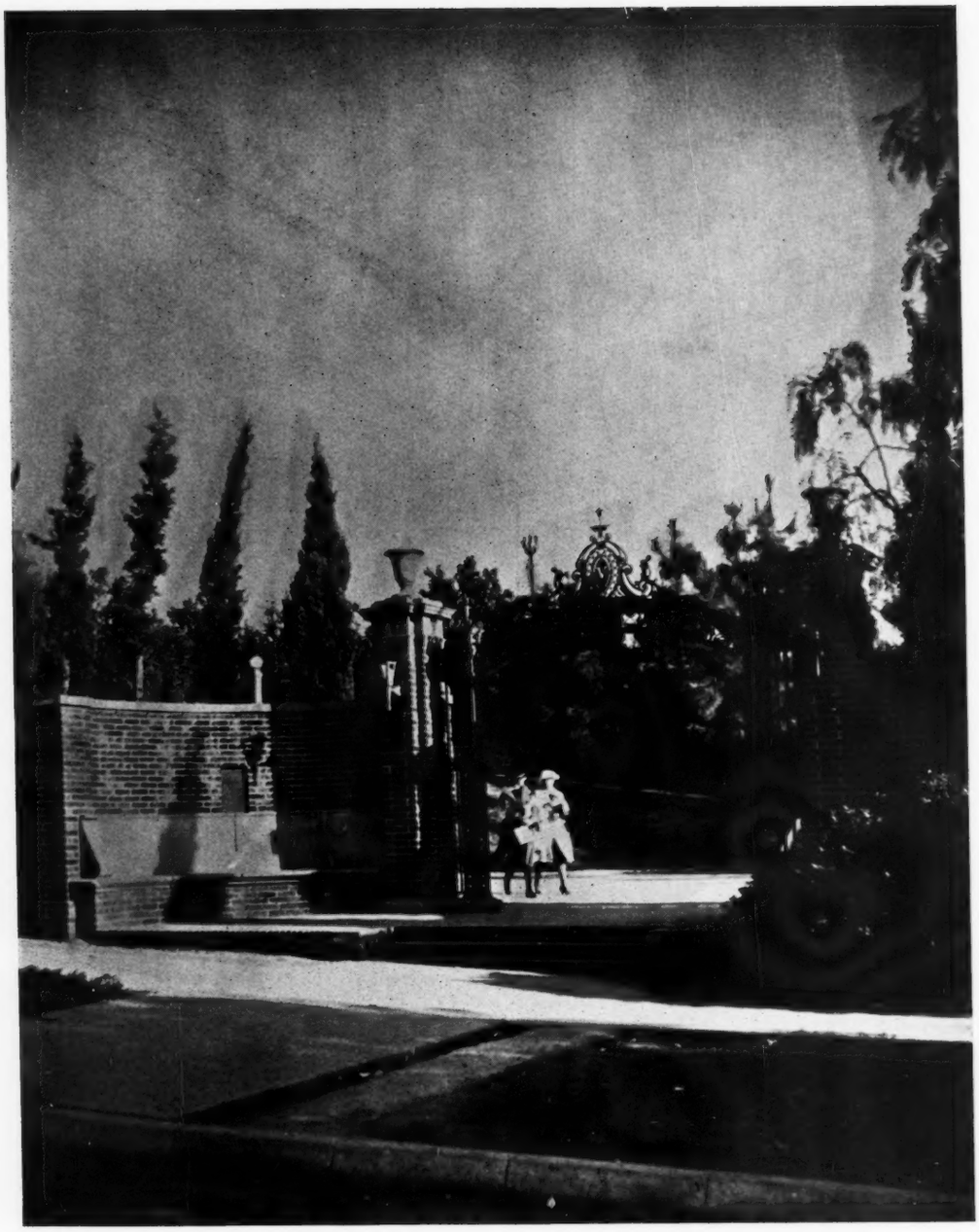


UNIV

THE POOL.
MEMORIAL OPEN AIR THEATER,
HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS



THE STAGE.
MEMORIAL OPEN AIR THEATER,
HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS



VAWTER MEMORIAL GATE.

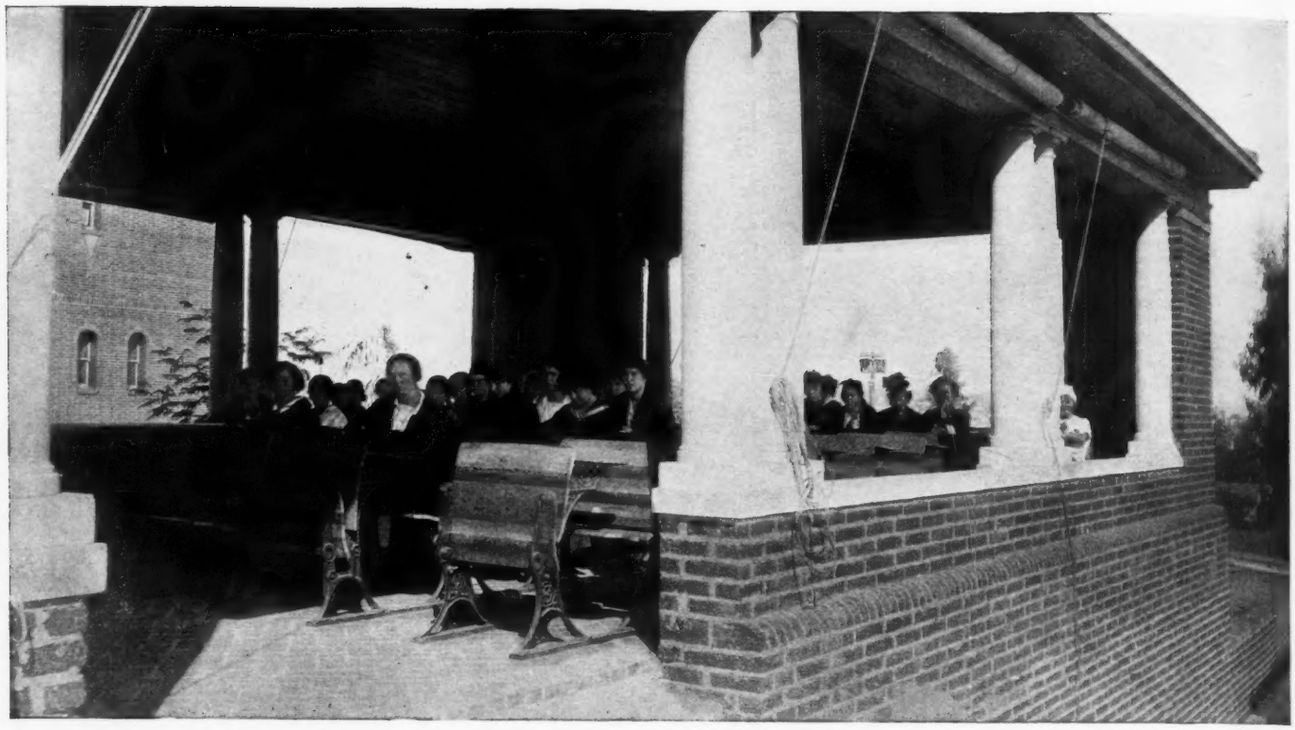
UNIV. OF MICH.

HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

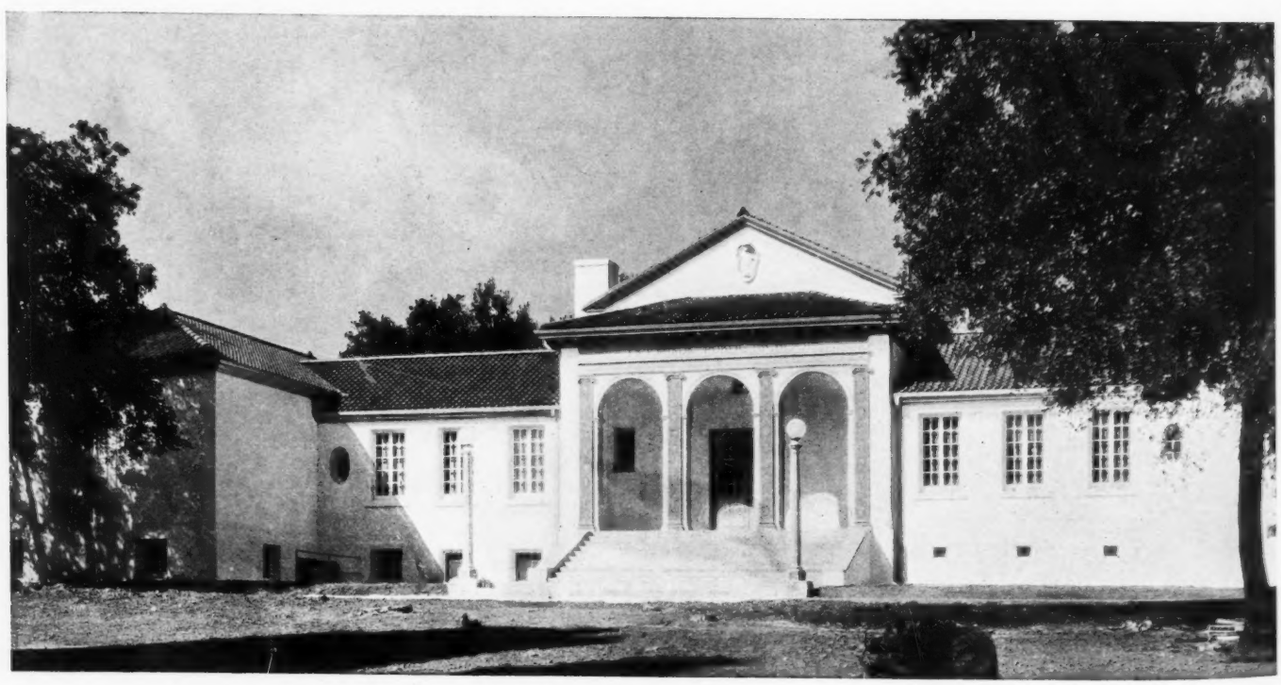
ELLIOTT MEMORIAL GATE.

UNIV. OF MICH.

HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



OPEN AIR STUDY HALL,
HIGH SCHOOL GROUP,
SANTA MONICA, CALIFORNIA.

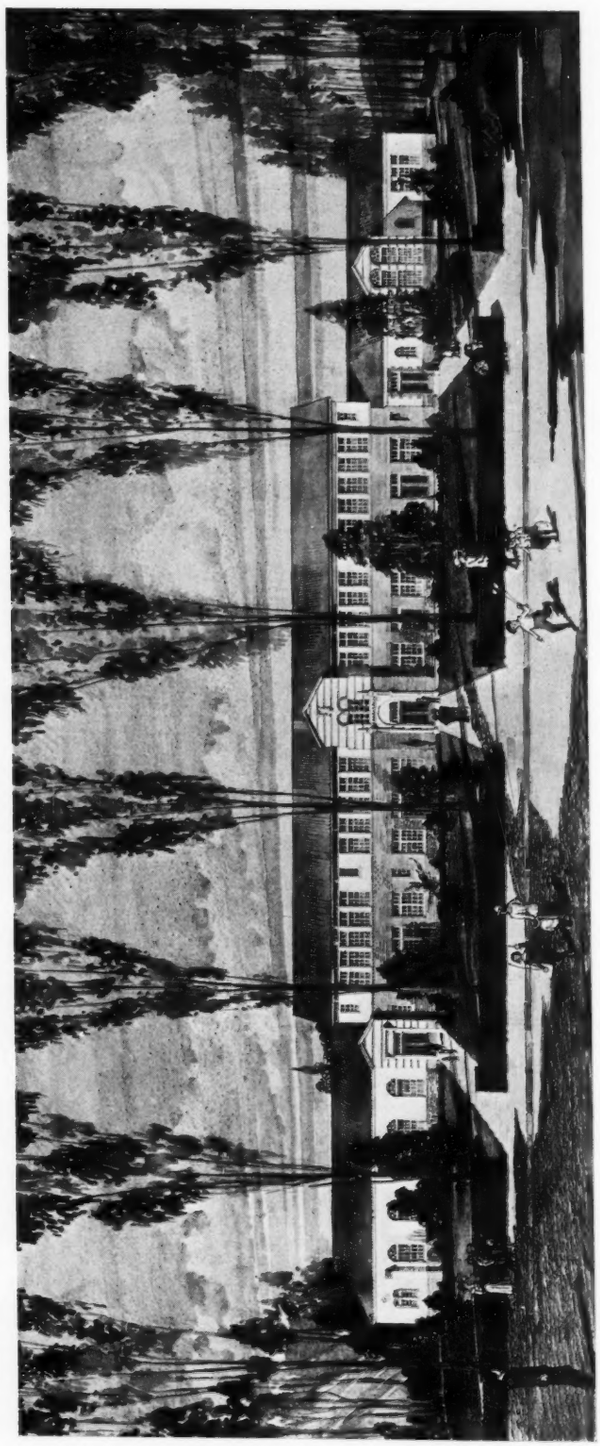


UNIV. OF MICH.

GRAMMAR SCHOOL,
LA CANADA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS

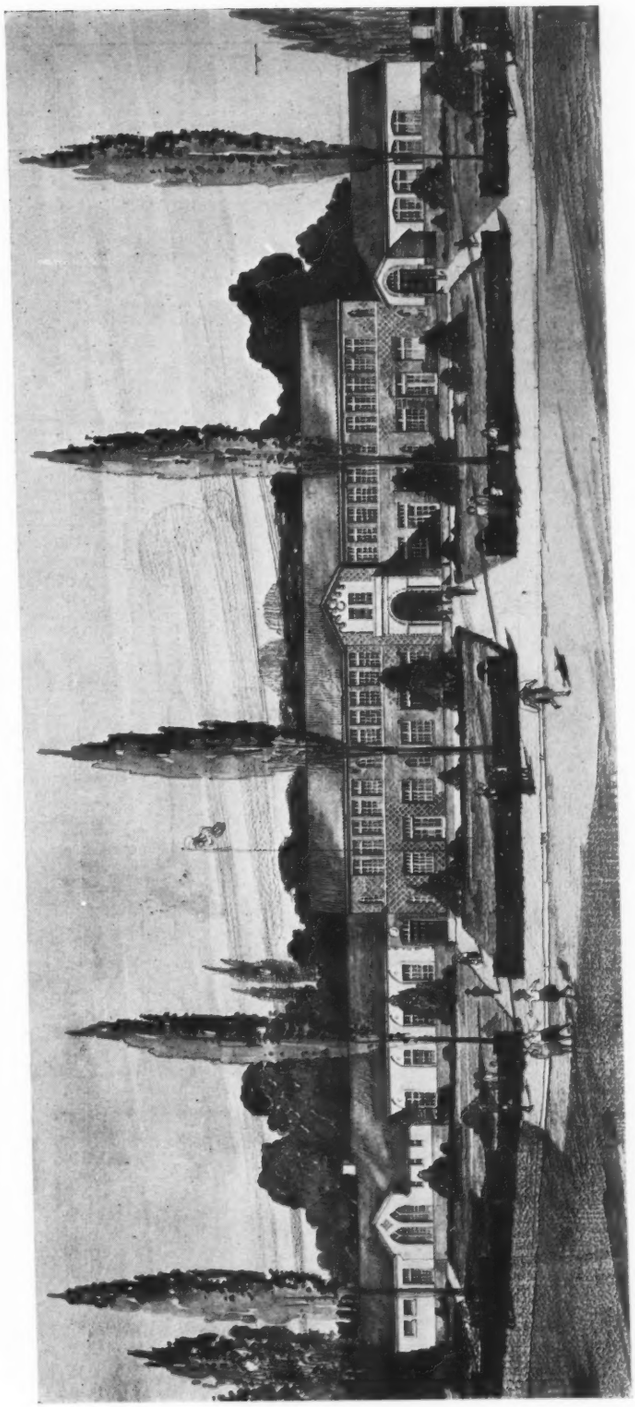
UNIV. OF MICH.

JOHN ADAMS SCHOOL,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



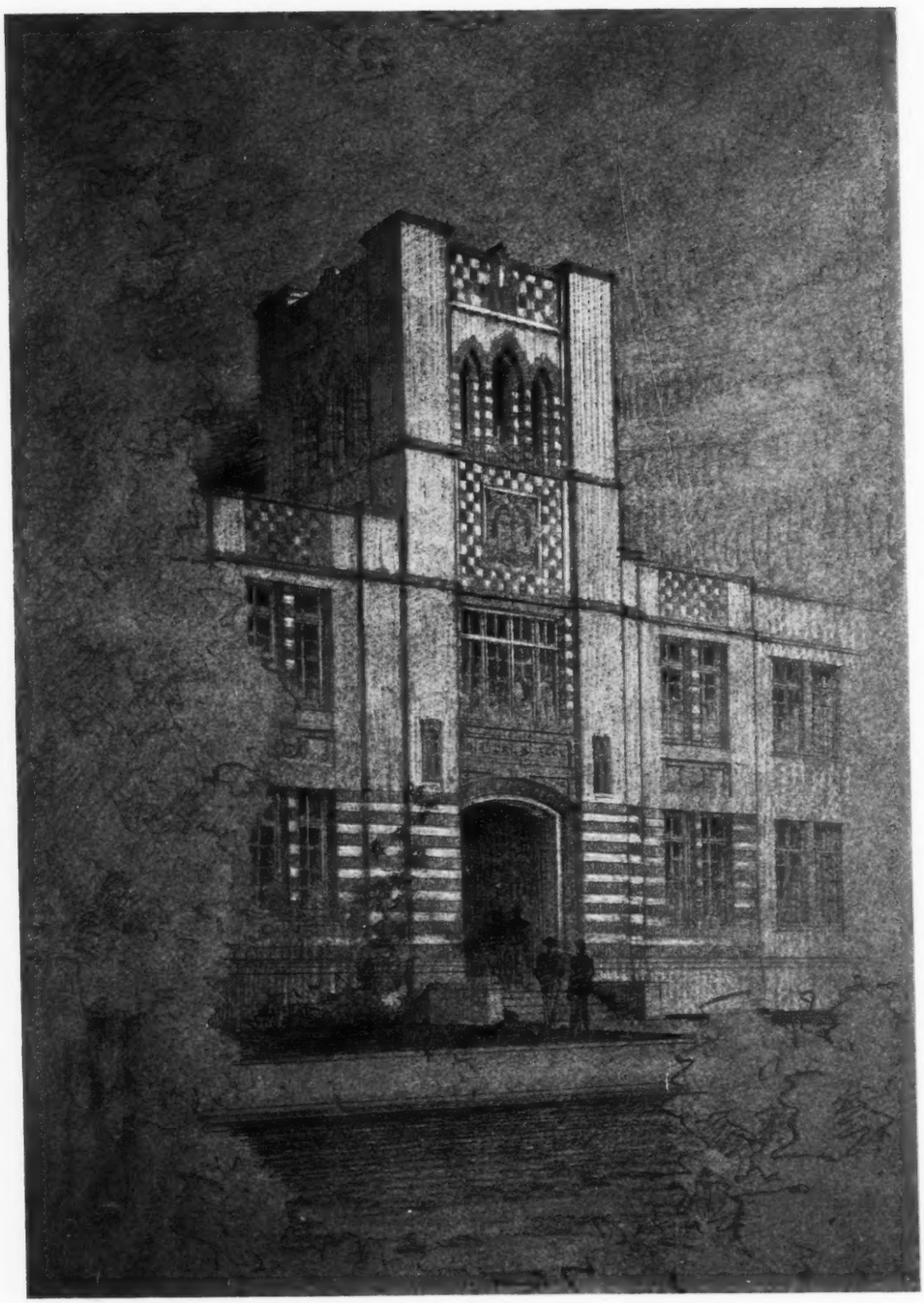
McKINLEY SCHOOL,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

UNIV. OF MICH.



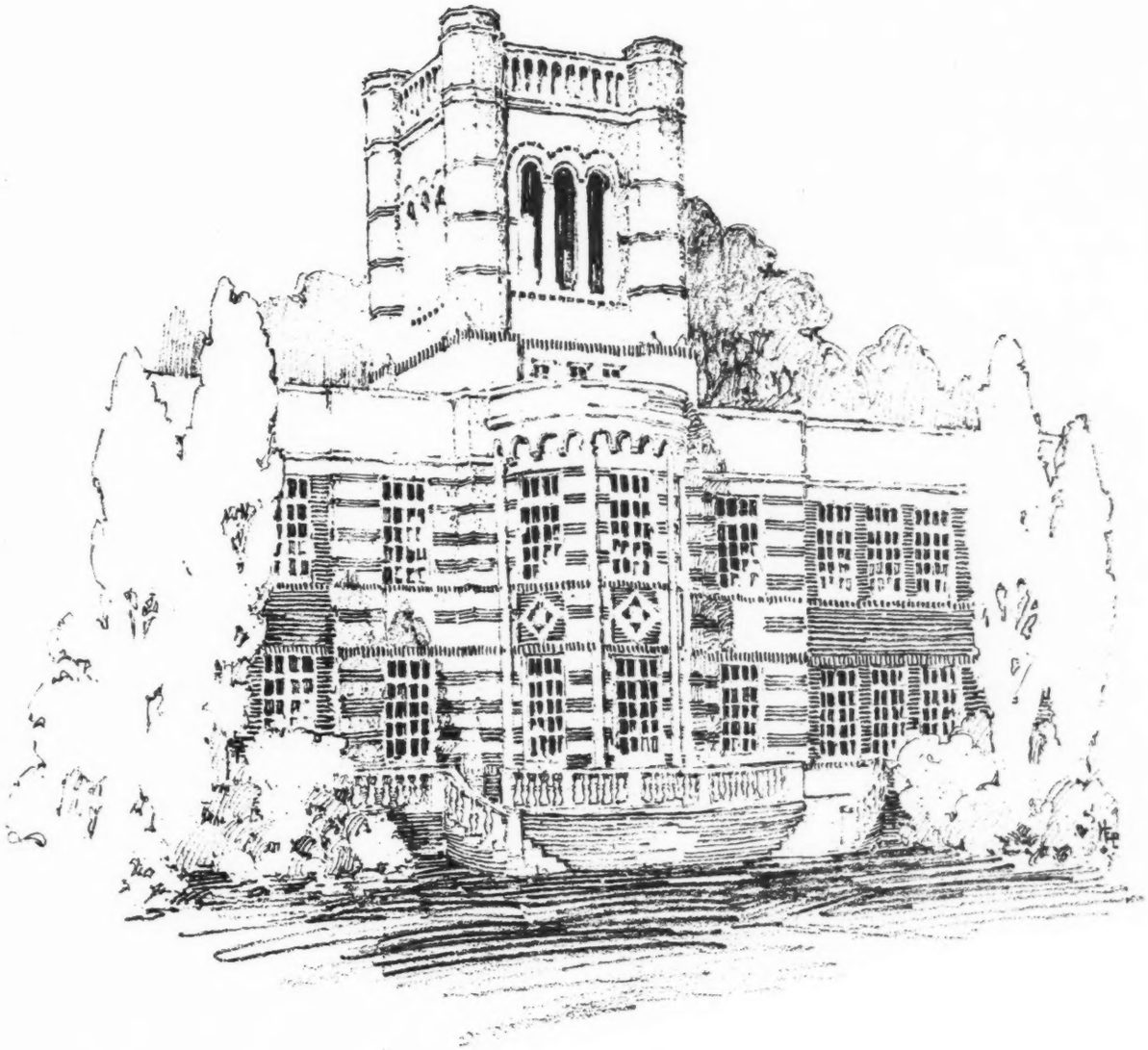
JOHN MUIR SCHOOL,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

UNIV. OF MICH.



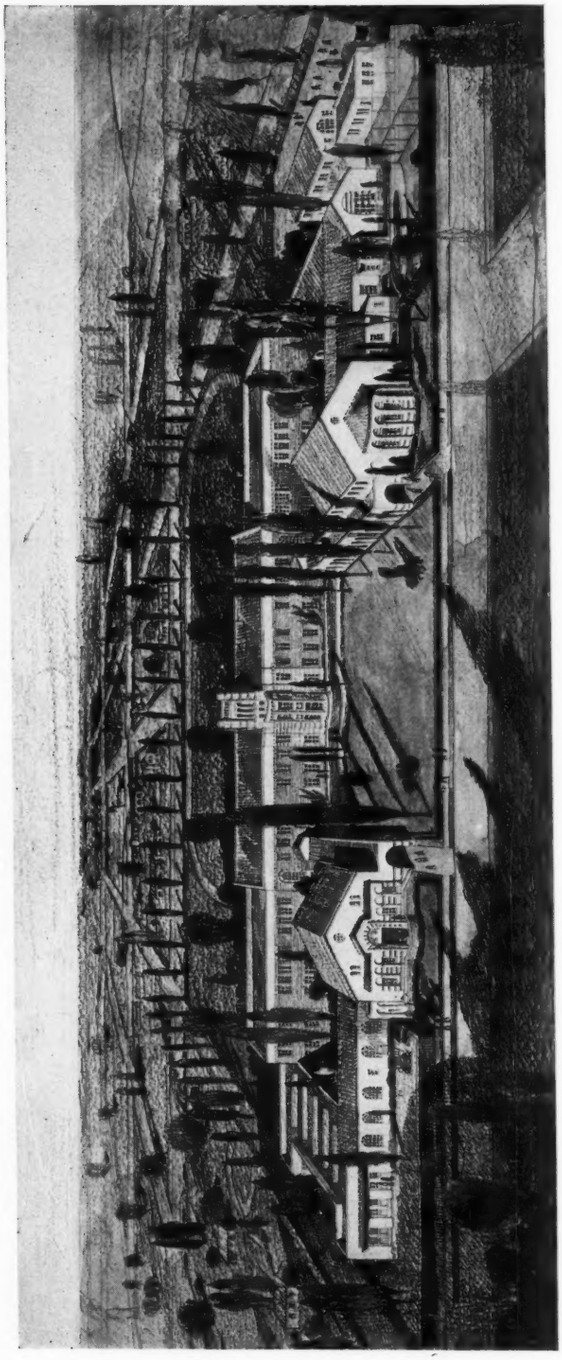
UNIV. OF MINN.

TOWER,
COLTON UNION HIGH SCHOOL,
COLTON, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

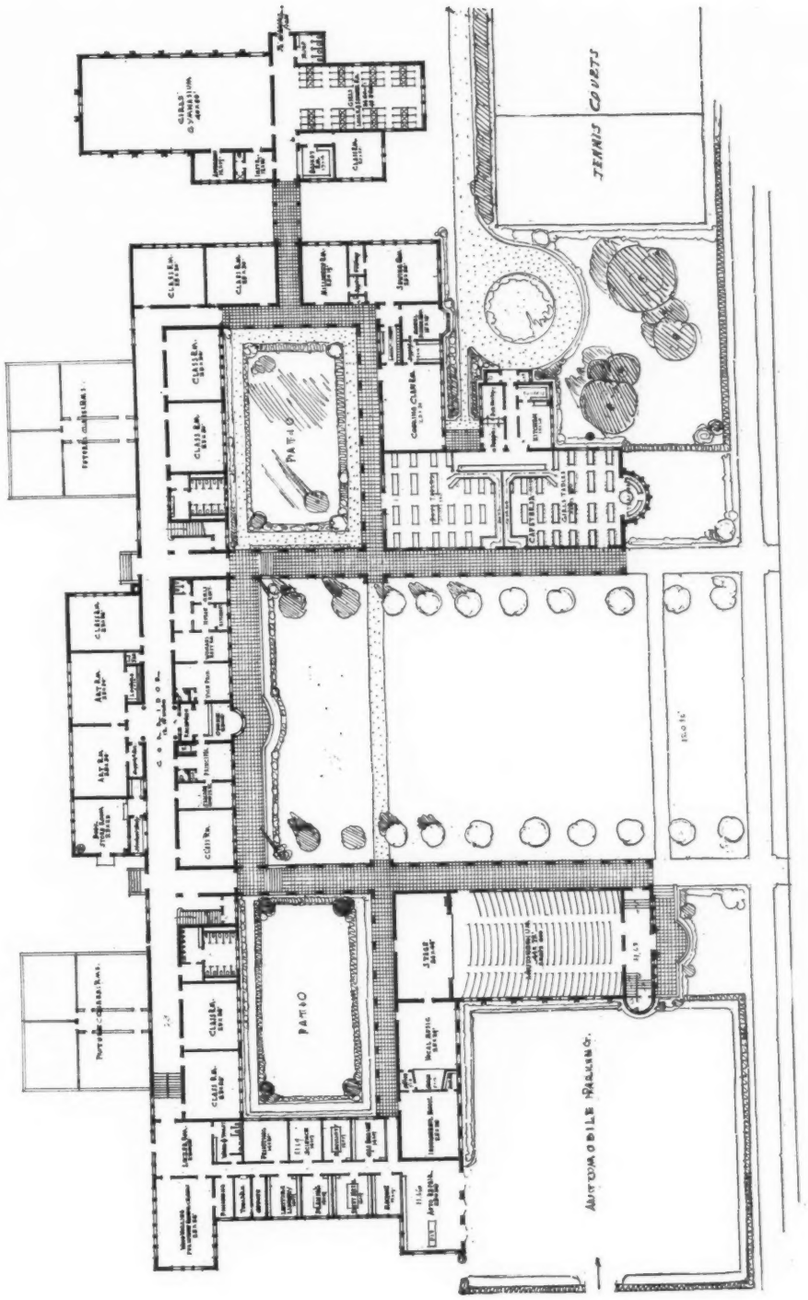


TOWER,
LINCOLN JUNIOR HIGH SCHOOL,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

UNIV. OF MICH.

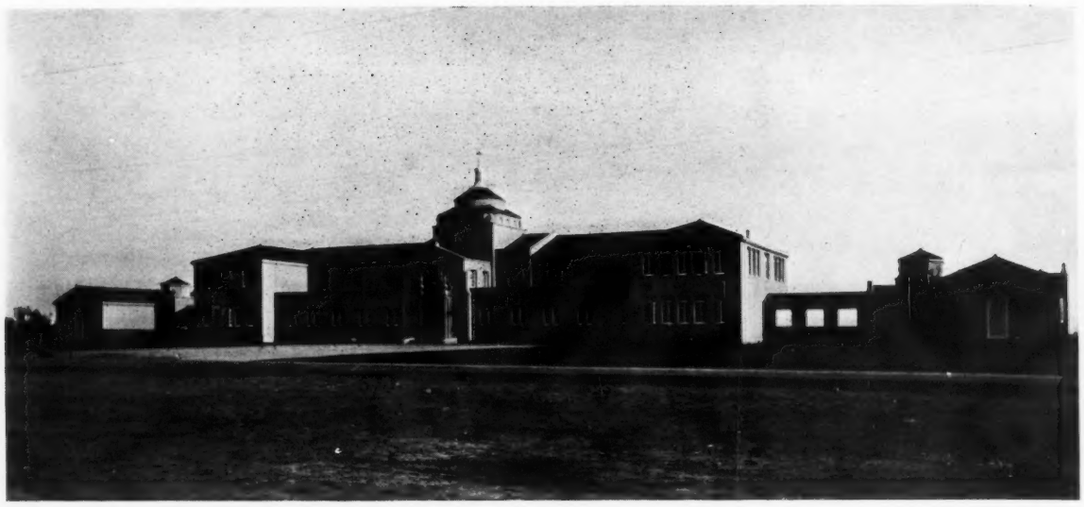


LINCOLN JUNIOR HIGH SCHOOL,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS

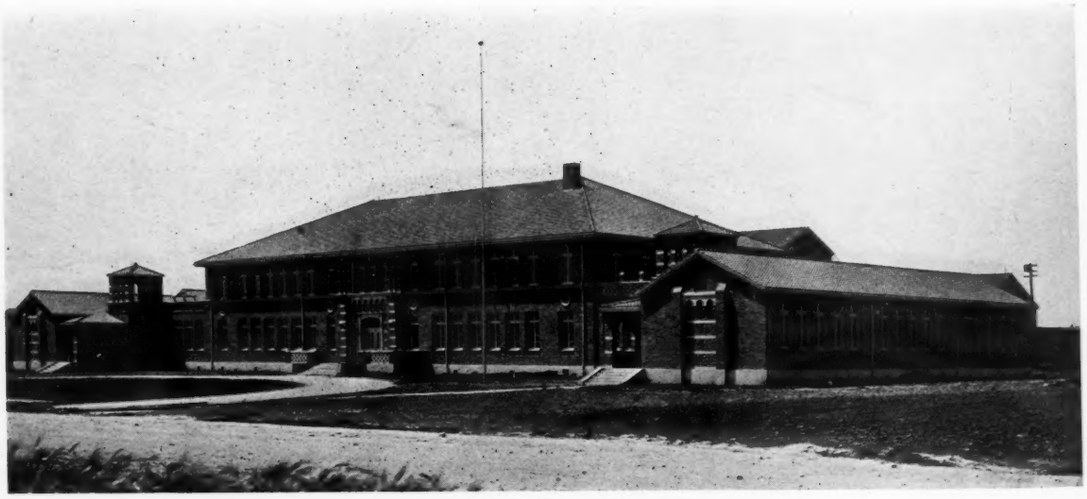


UNIV. OF MICH.

PLAN,
LINCOLN JUNIOR HIGH SCHOOL,
SANTA MONICA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



UNION HIGH SCHOOL,
MERCED, CALIFORNIA.

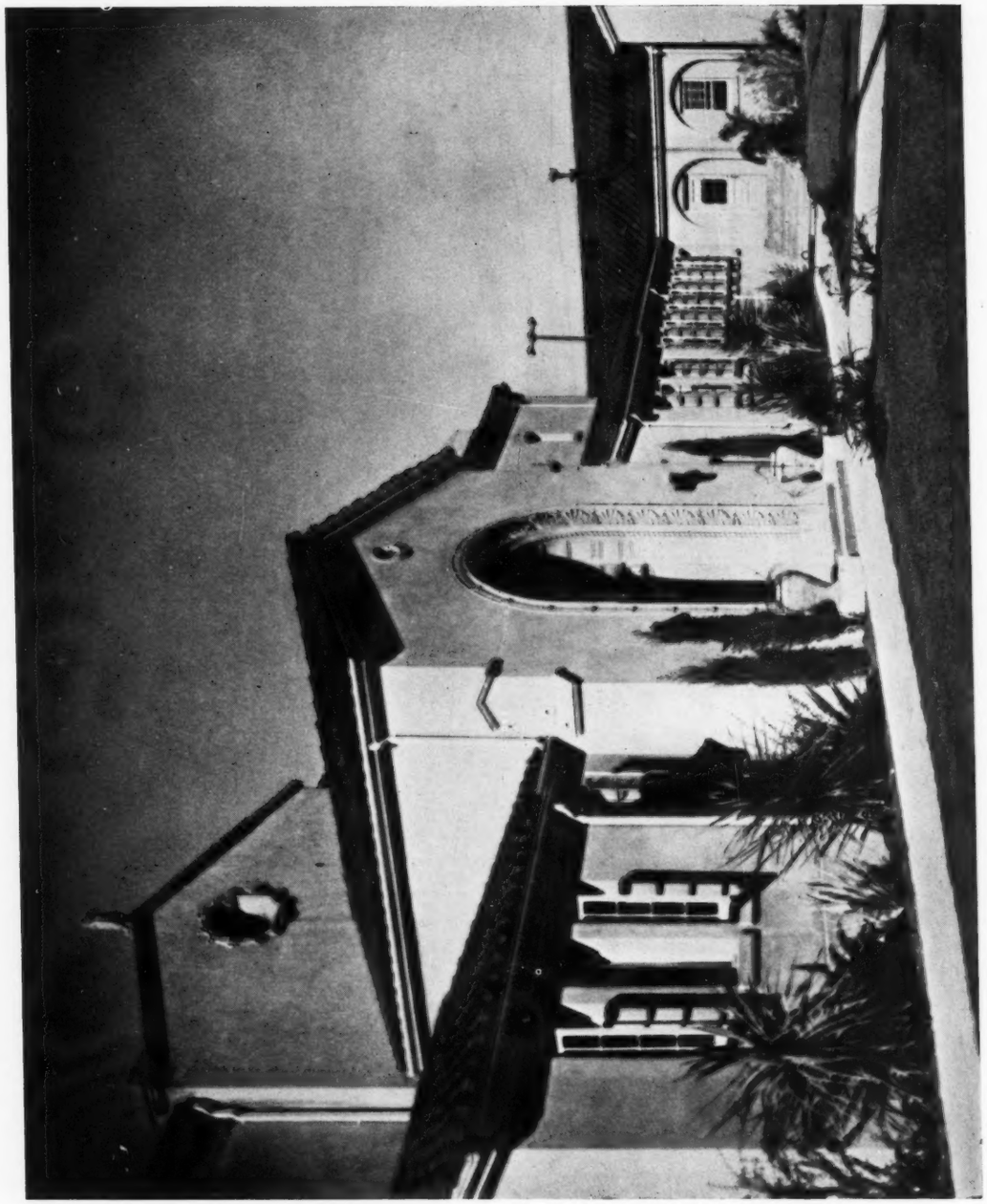


UA C MIC

UNION HIGH SCHOOL,
OXNARD, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS

UNIV. OF MICH.

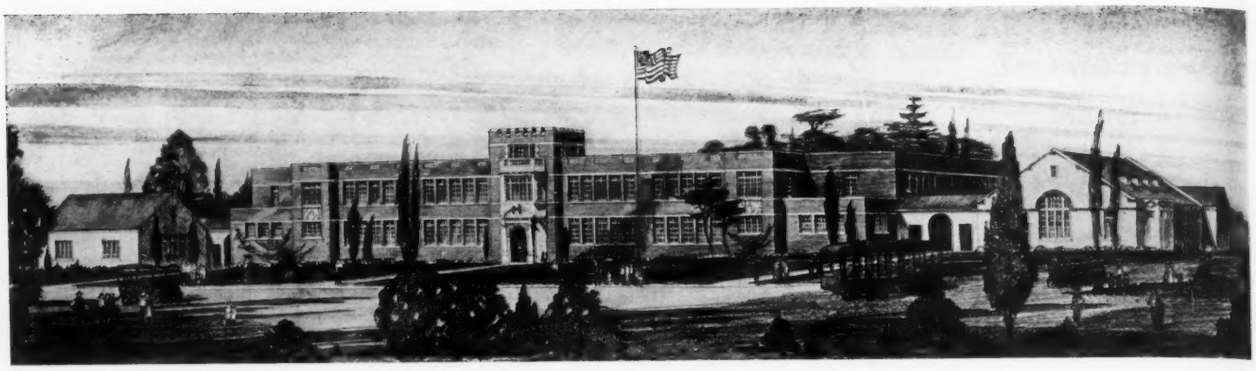
CENTRAL MOTIF,
UNION HIGH SCHOOL,
MERCED, CALIFORNIA.



UNIV. OF MICH.

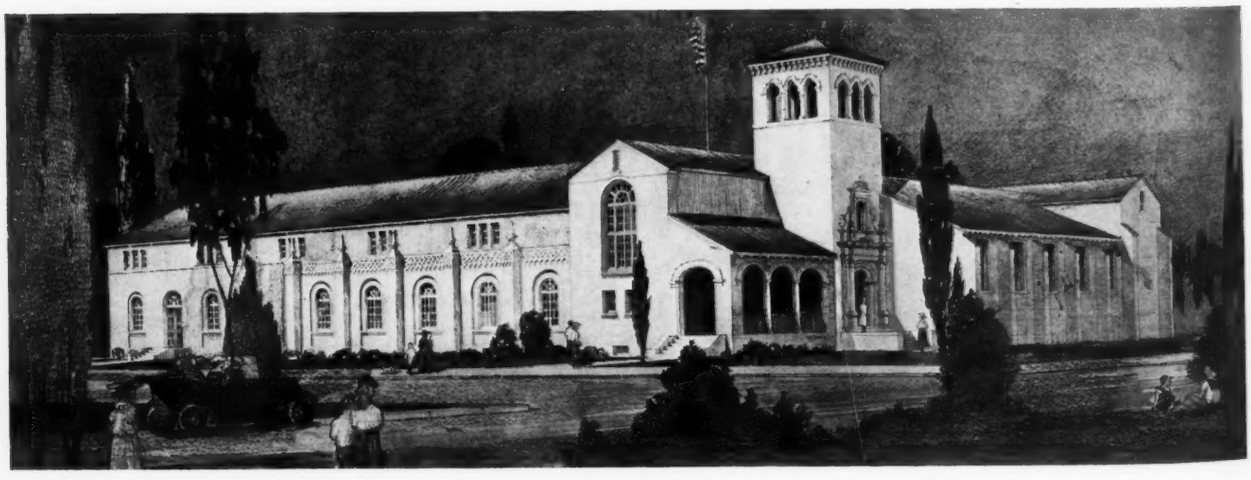
CORONEL SCHOOL,
LOS ANGELES, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

CORONEL SCHOOL,
LOS ANGELES, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



JEFFERSON JUNIOR HIGH SCHOOL,
LONG BEACH, CALIFORNIA.
ALLISON & ALLISON
H. ALFRED ANDERSON } ASSOCIATE ARCHITECTS

WEST ELEVATION OF LUTHER BURBANK SCHOOL, LONG BEACH CALIFORNIA.
ALLISON AND ALLISON ARCHITECTS



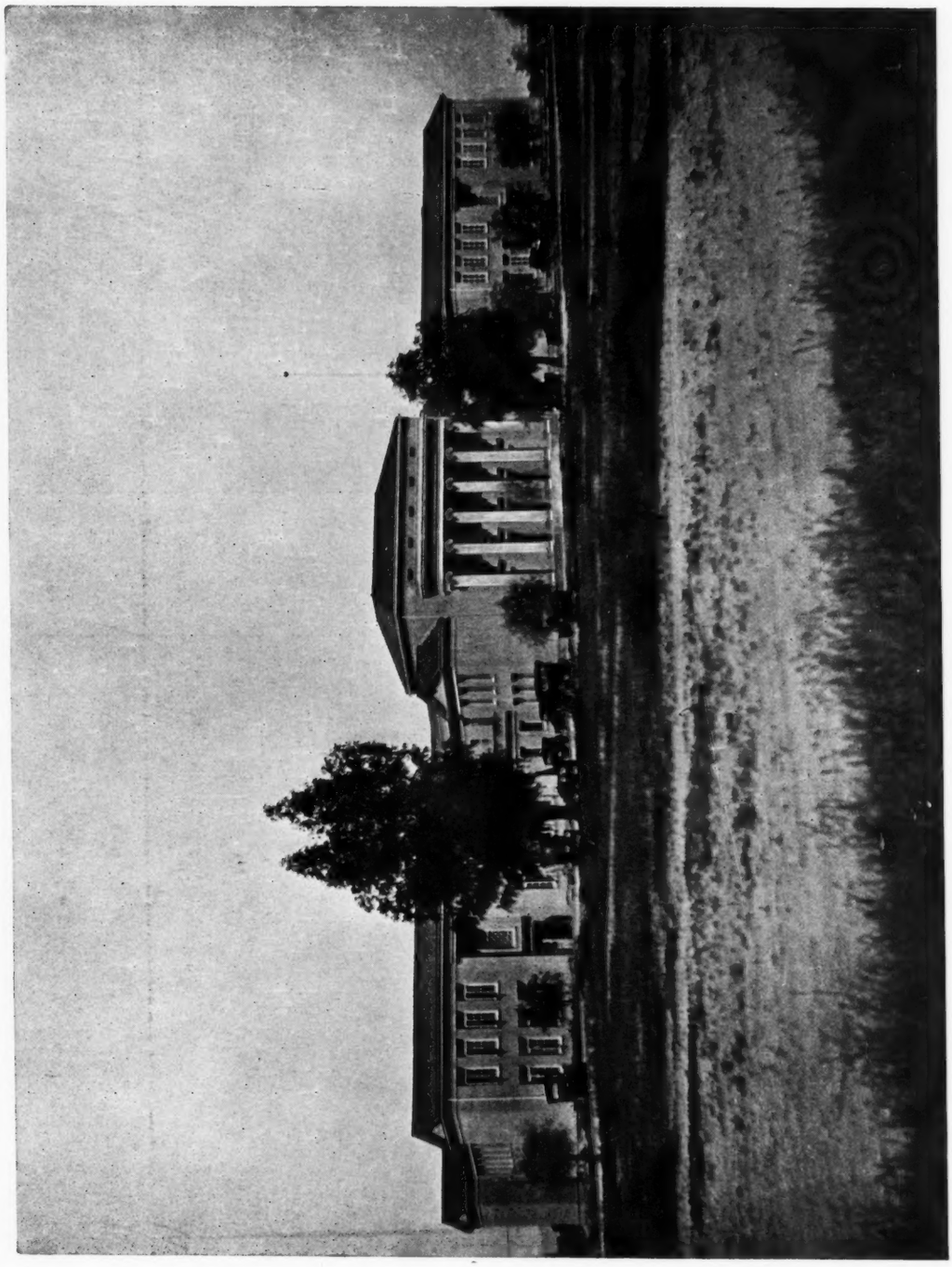
UNIV. OF MICH.

ATLANTIC AVENUE SCHOOL,
LONG BEACH, CALIFORNIA.
ALLISON & ALLISON
H. ALFRED ANDERSON } ASSOCIATE ARCHITECTS

LUTHER BURBANK SCHOOL,
LONG BEACH, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

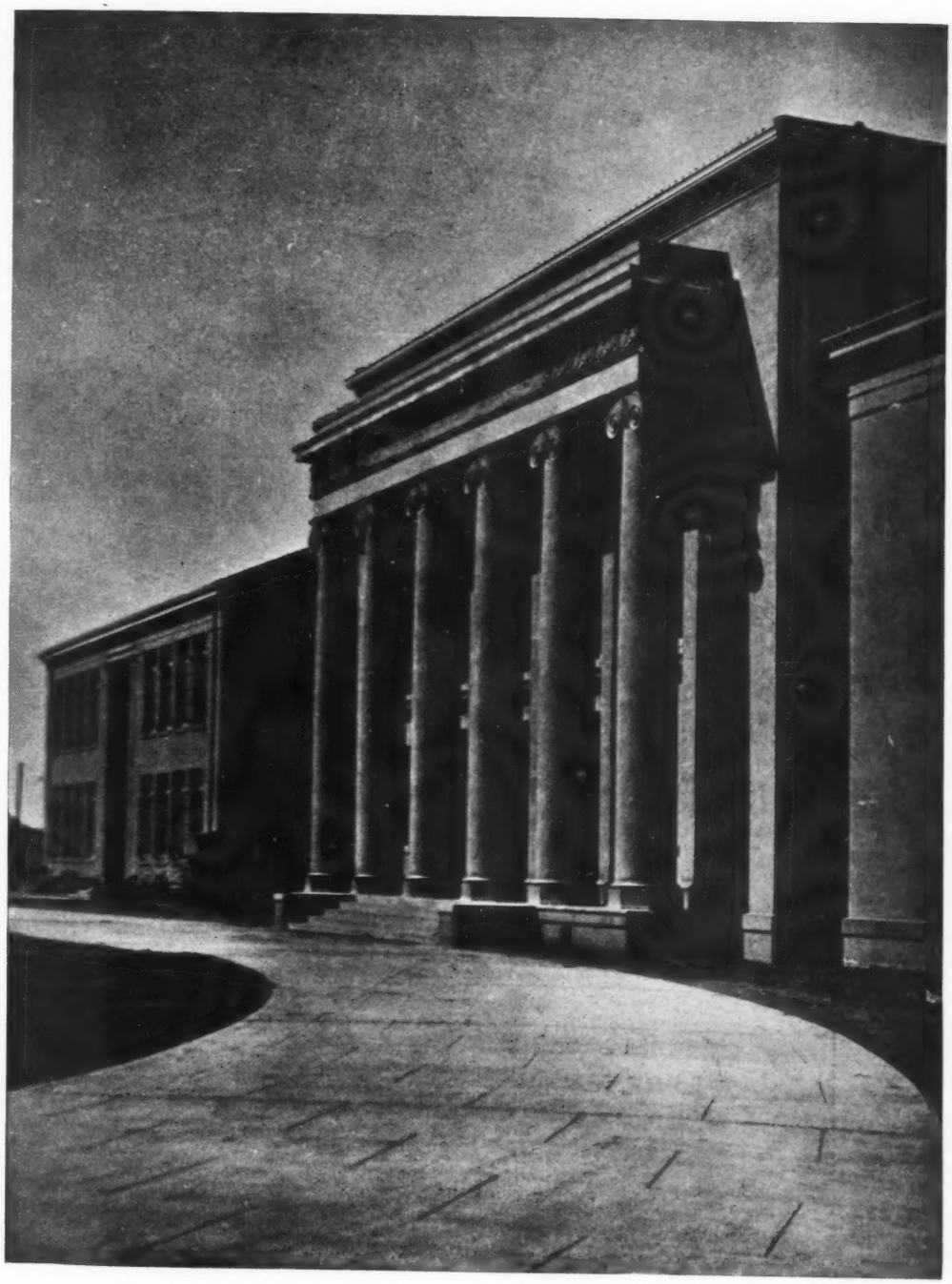
ATLANTIC AVENUE SCHOOL,
LONG BEACH, CALIFORNIA.
ALLISON & ALLISON
H. ALFRED ANDERSON } ASSOCIATE ARCHITECTS

UNIV. OF MICH.

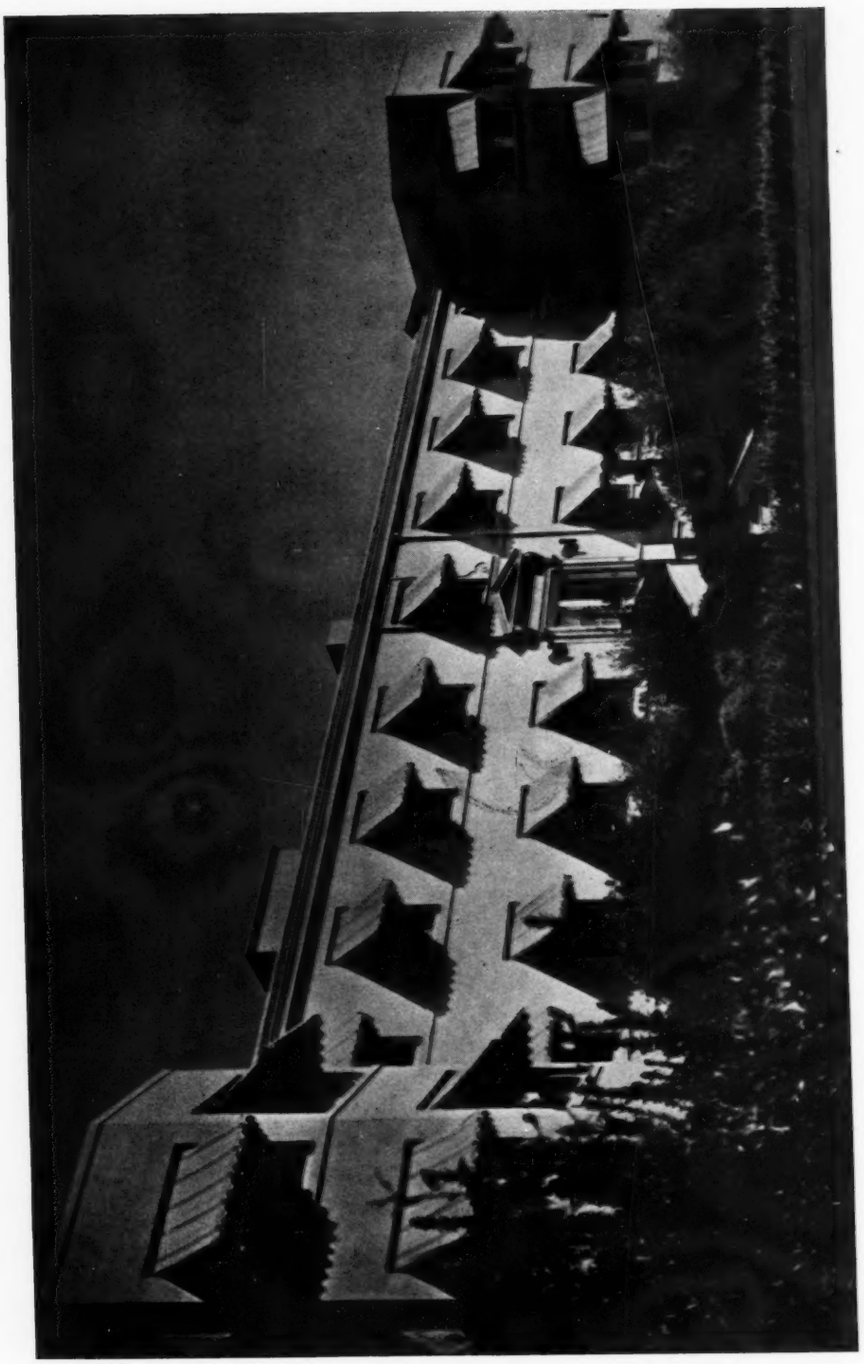


UNIV. OF MICH.

HIGH SCHOOL,
CHANDLER, ARIZONA.
ALLISON & ALLISON, ARCHITECTS.

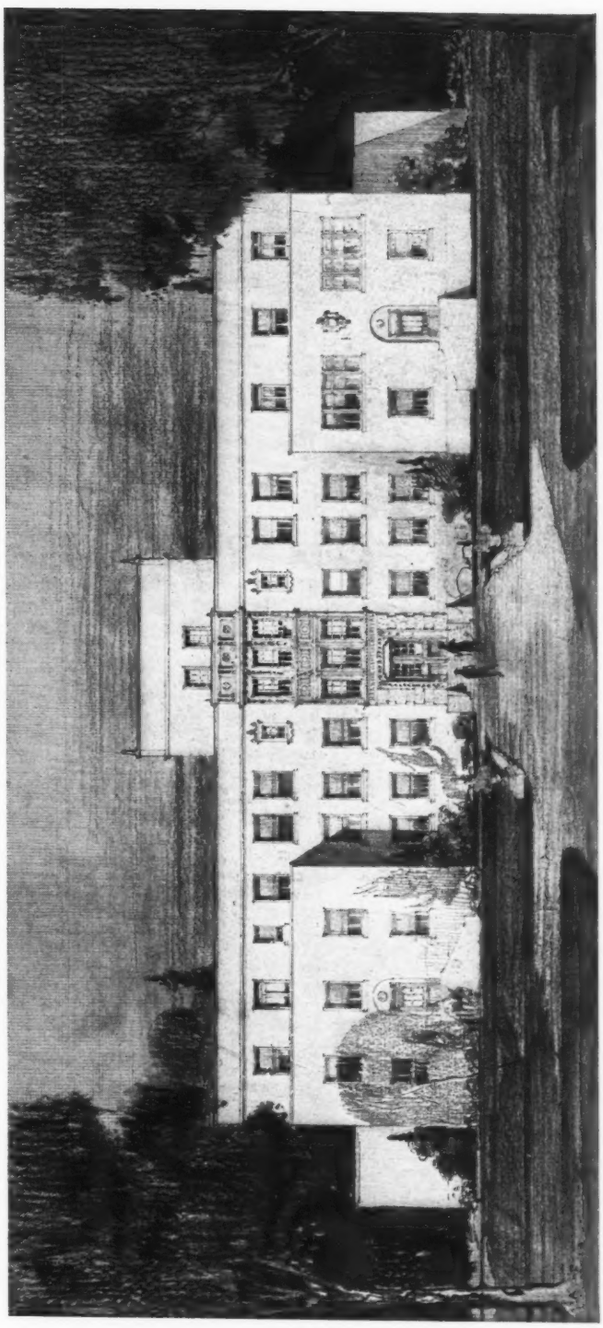


ENTRANCE MOTIF,
HIGH SCHOOL,
CHANDLER, ARIZONA.
ALLISON & ALLISON, ARCHITECTS.



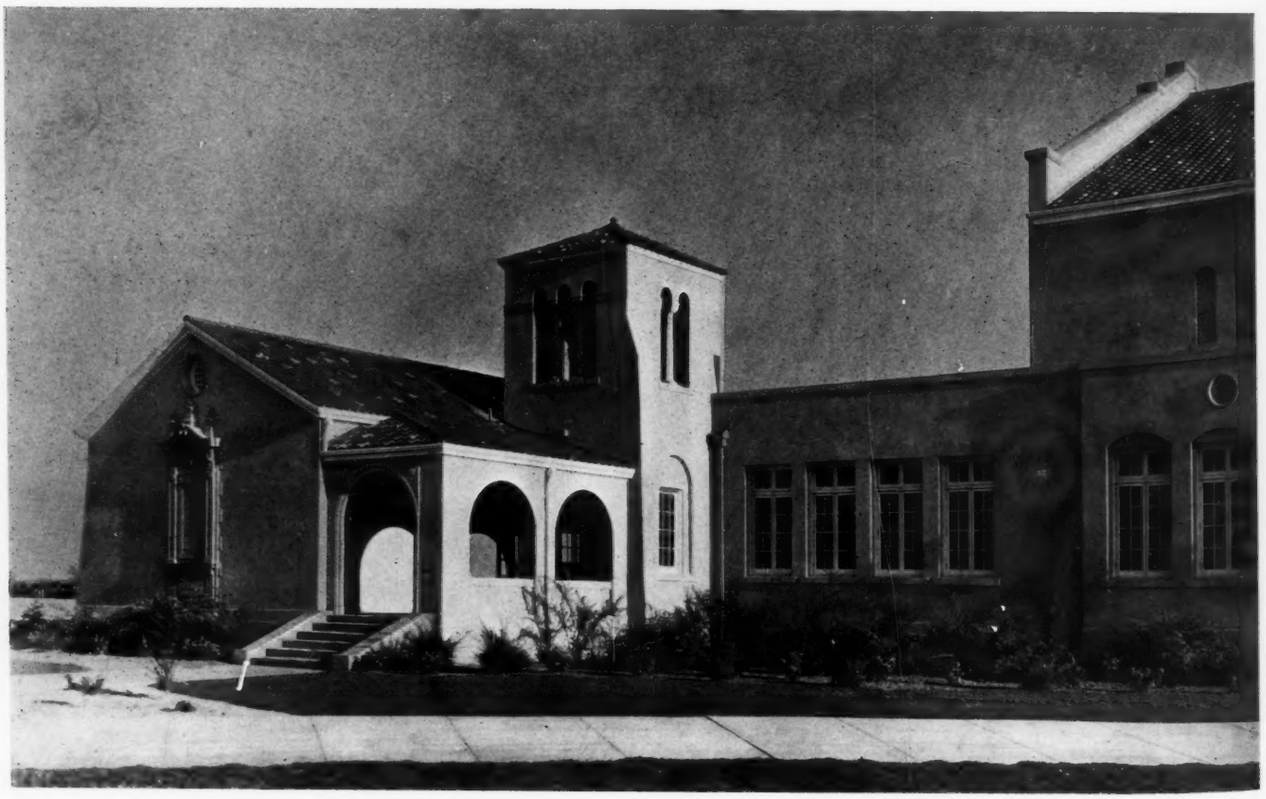
UNIV. OF MICH.

MURPHY MEMORIAL HOSPITAL,
WHITTIER, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



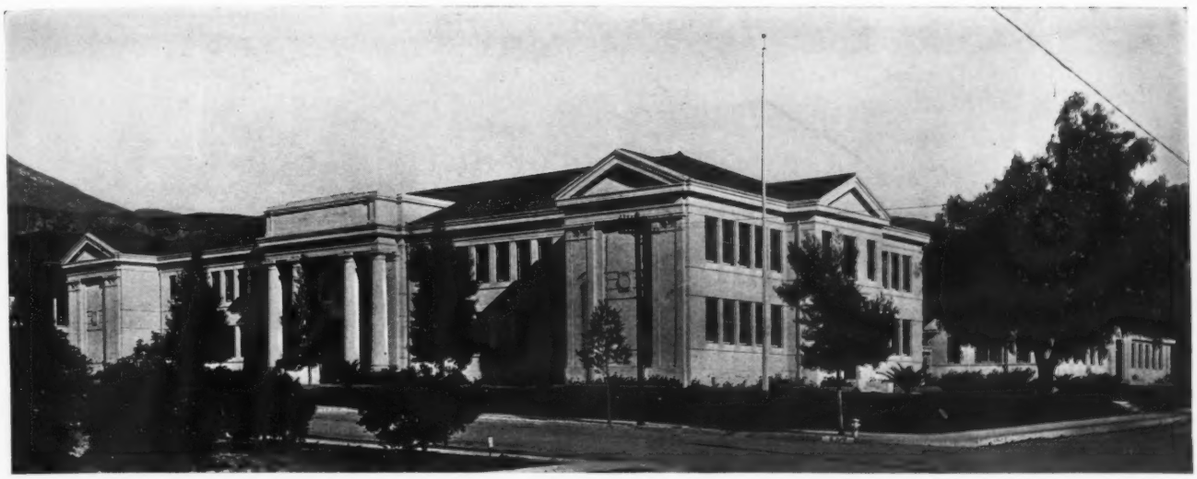
HARBOR GENERAL HOSPITAL,
SAN PEDRO, CALIFORNIA
ALLISON & ALLISON, ARCHITECTS.

MAIN VIEW.

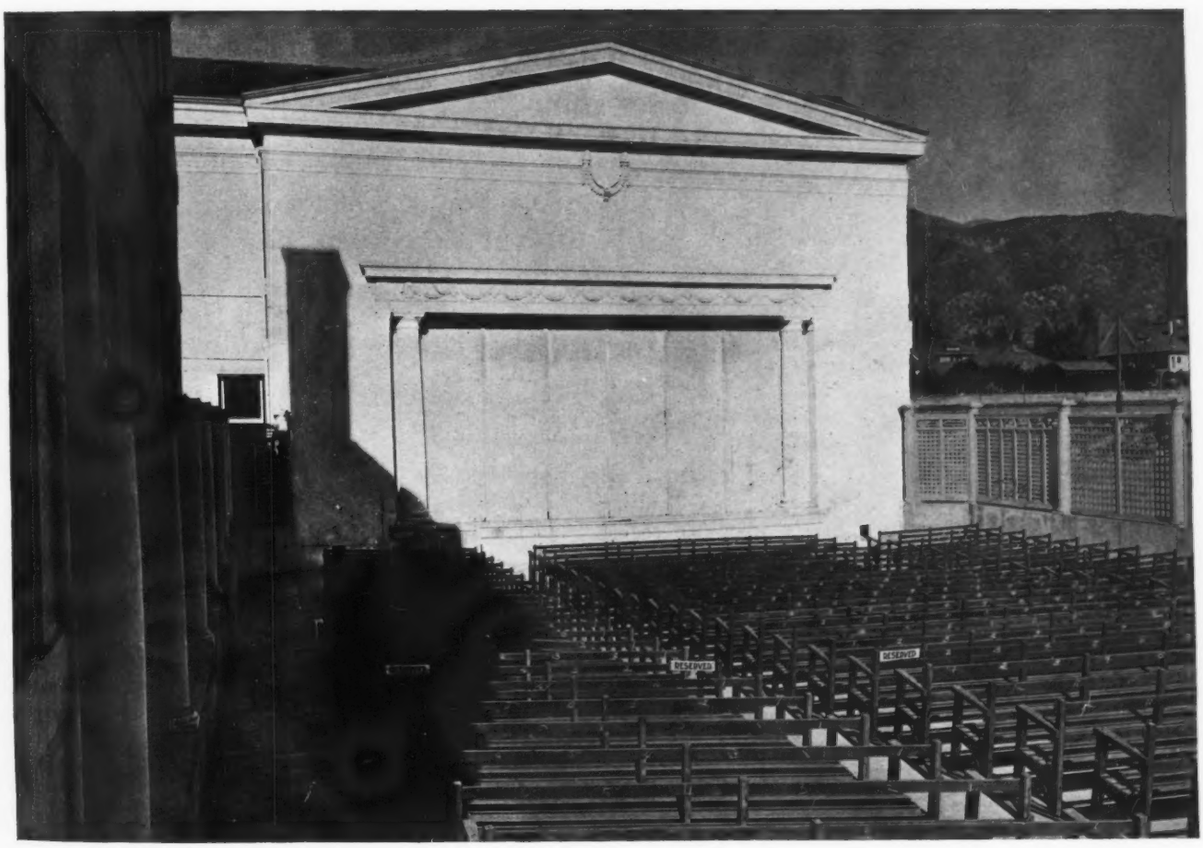


DETAIL OF END PAVILION.

UNION HIGH SCHOOL,
FOWLER, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



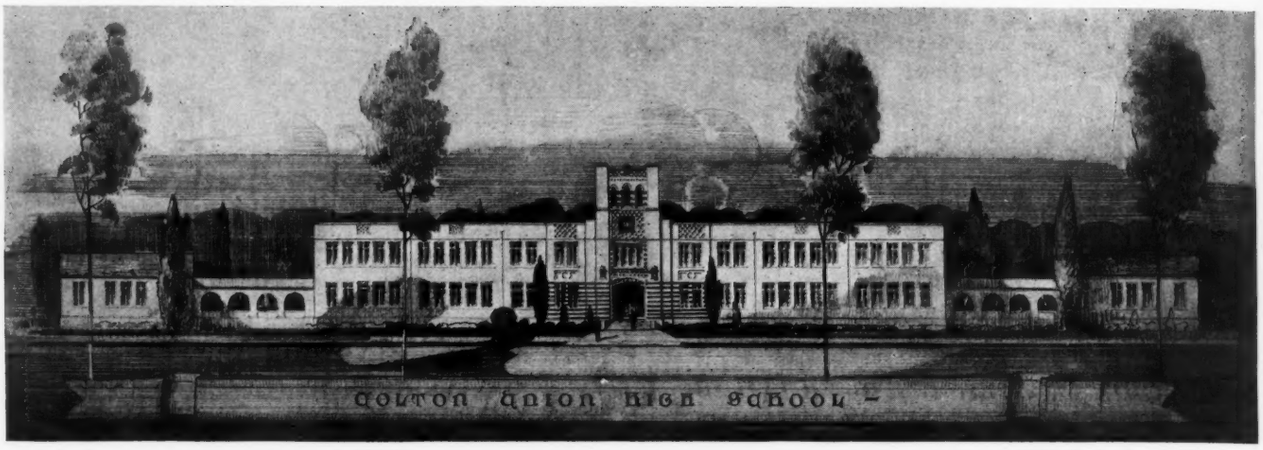
MAIN VIEW.



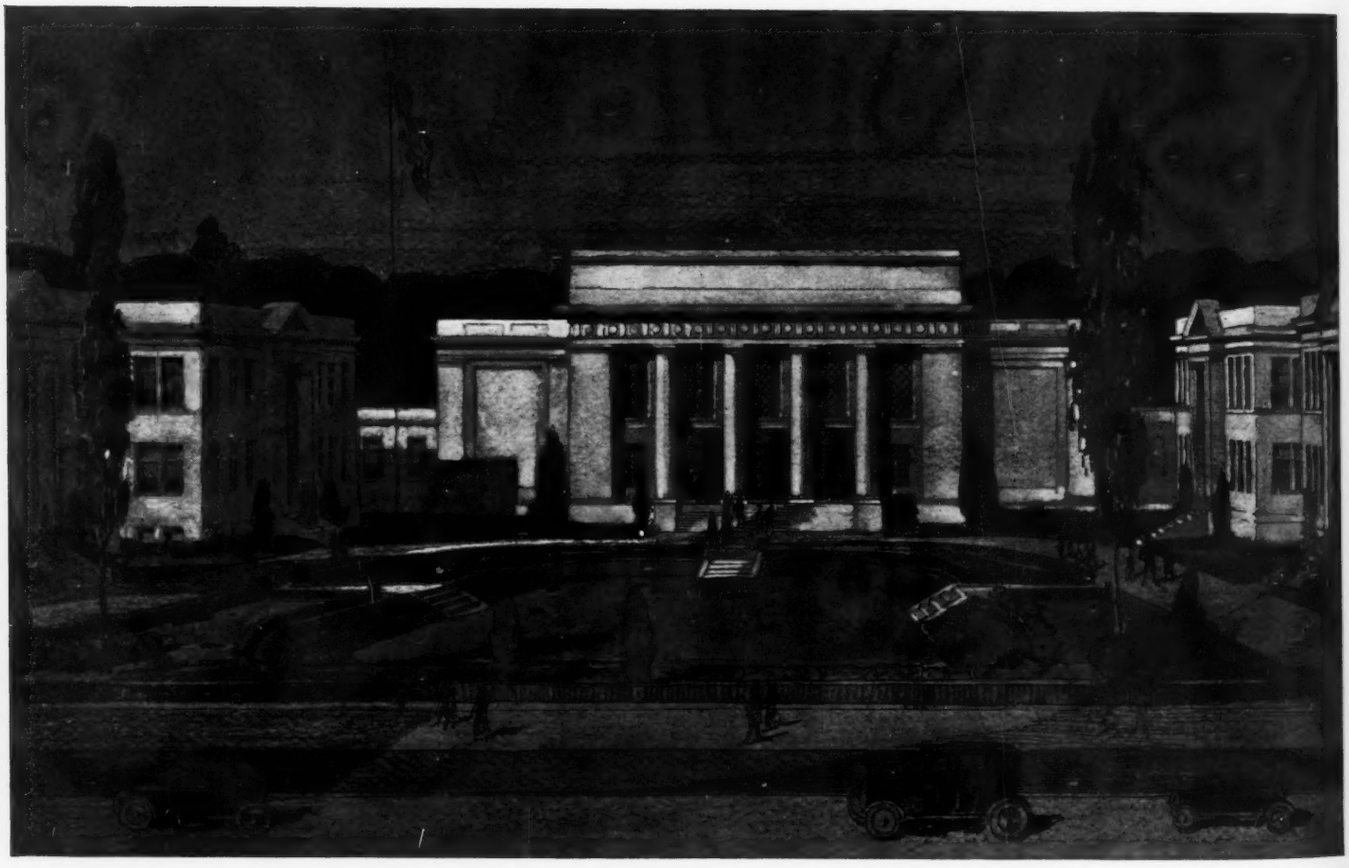
OPEN AIR STAGE.

UNIV. OF MICH.

HIGH SCHOOL,
MONROVIA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

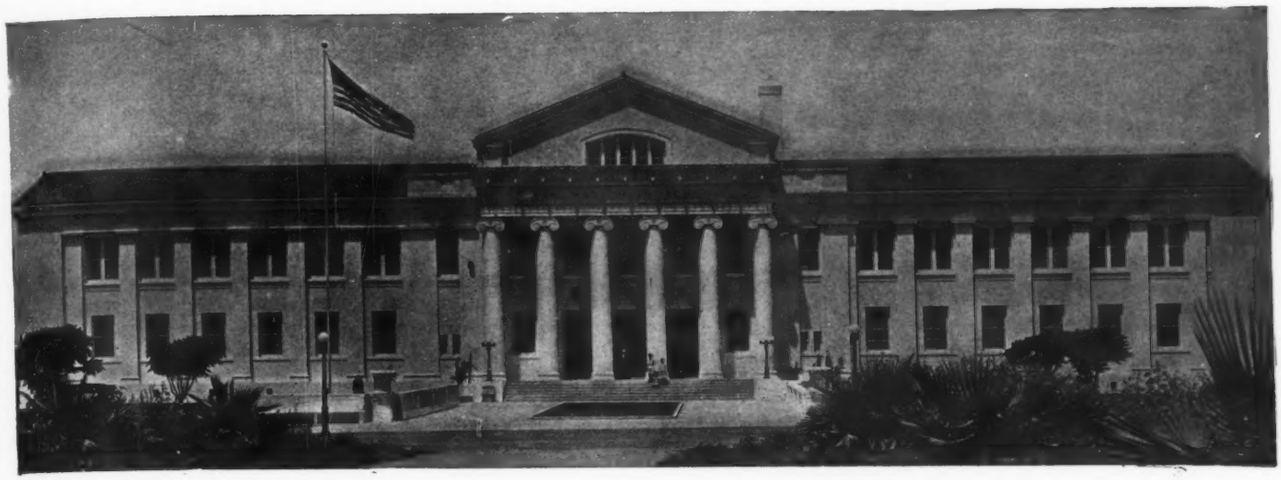


COLTON UNION HIGH SCHOOL,
COLTON, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



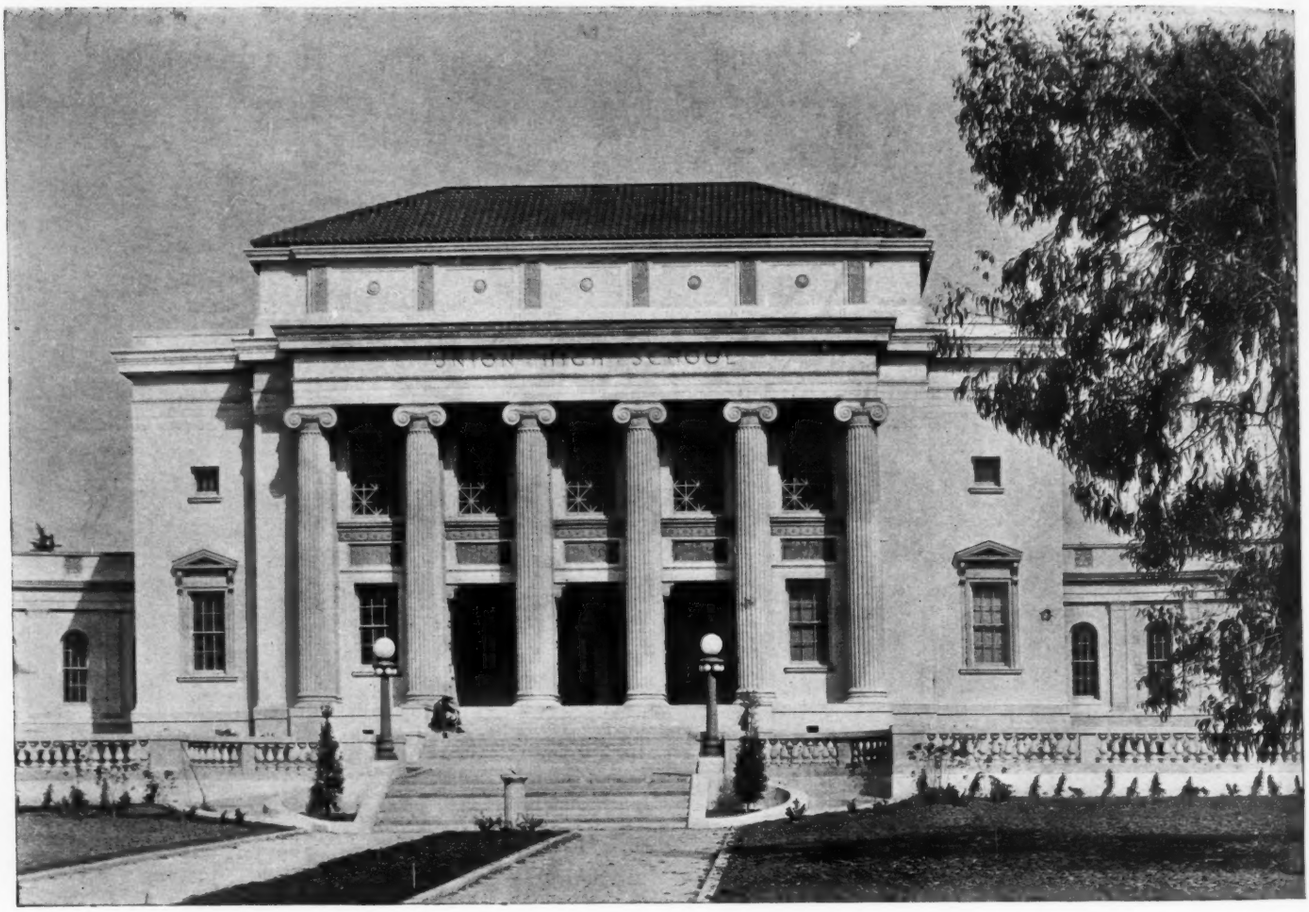
UNIV. OF MICH.

HIGH SCHOOL GROUP,
ORANGE, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



HIGH SCHOOL,
VAN NUYS, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

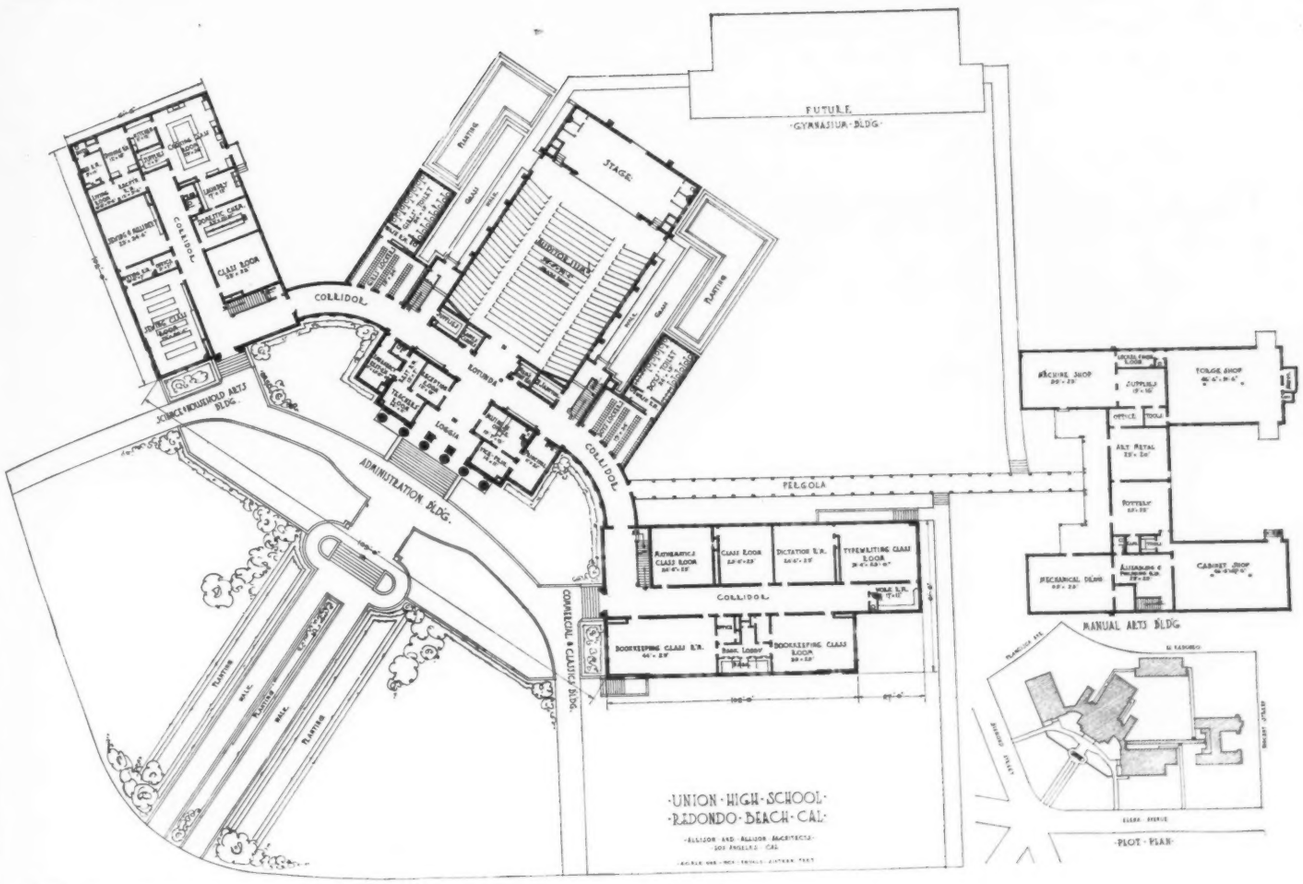
UNIV. OF MICH.



UNIV. OF ILLINOIS

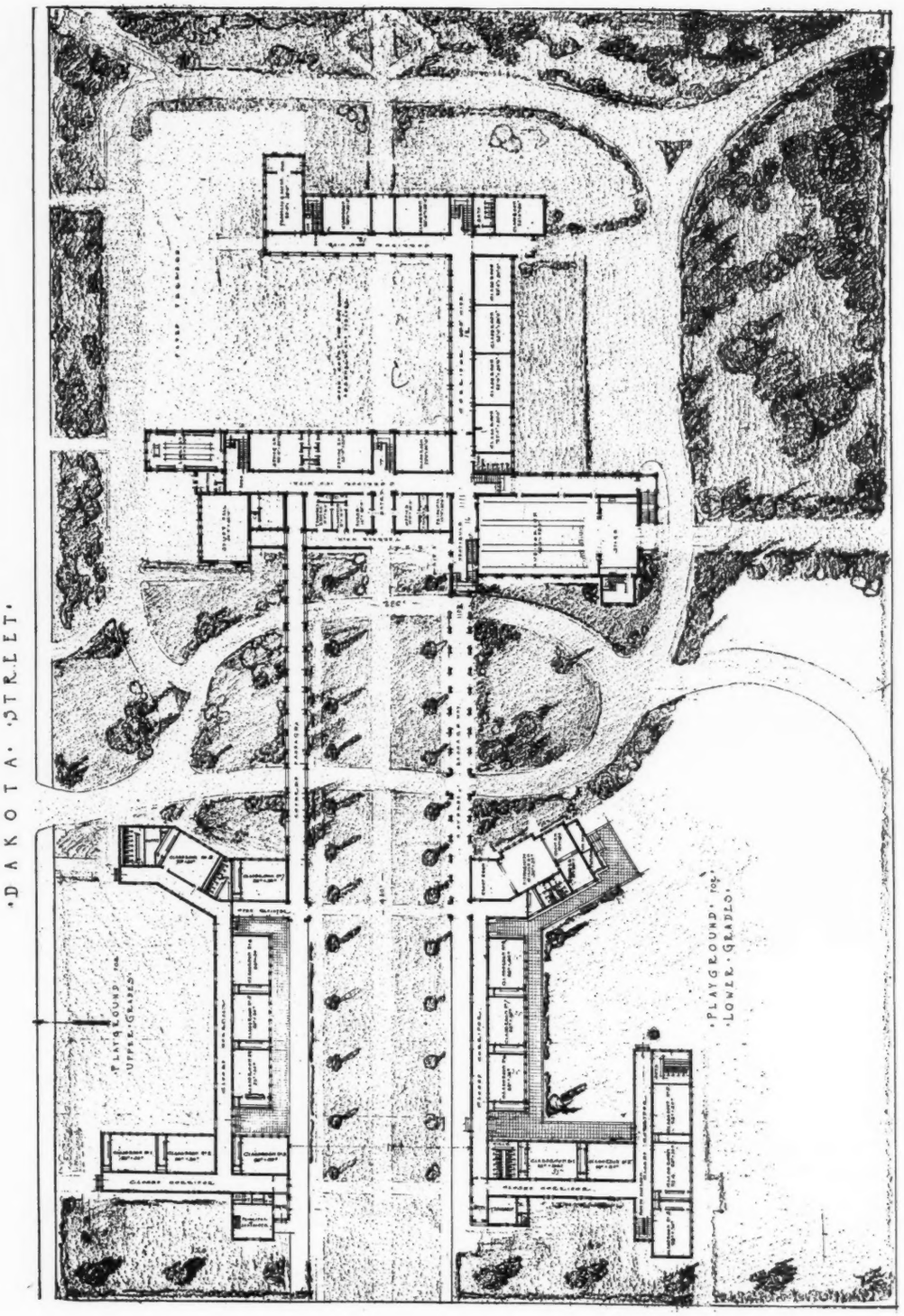
ENTRANCE DETAIL,
UNION HIGH SCHOOL,
REDONDO, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

MAIN VIEW.



FIRST FLOOR PLAN.

UNION HIGH SCHOOL.
REDONDO, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



UNIV. OF MICH.

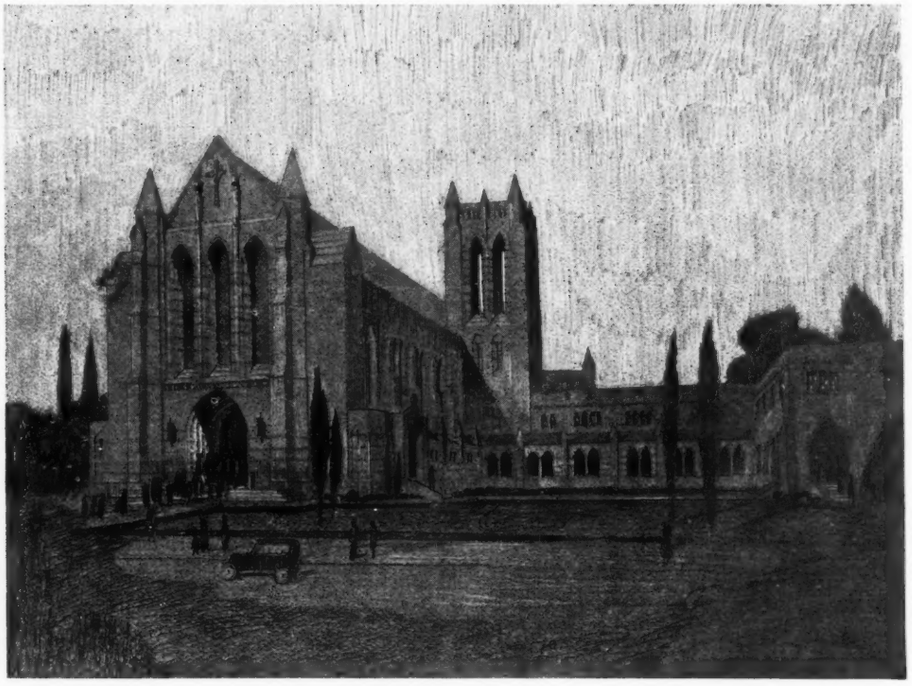
PLAN FOR SCHEME "A"
WASHINGTON SCHOOL,
PASADENA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

SCHEME "A"

SCHEME "B"

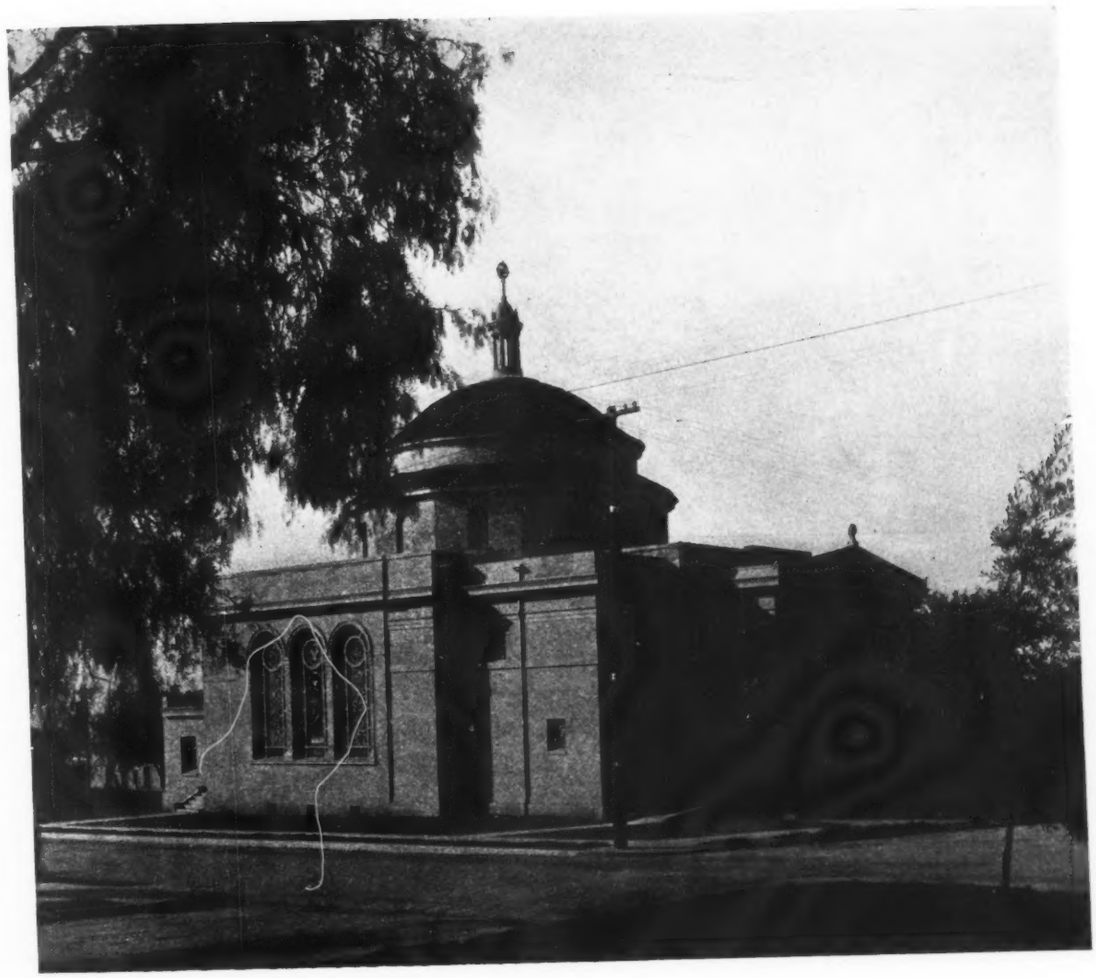
WASHINGTON SCHOOL,
PASADENA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

CHURCH OF THE MESSIAH,
LOS ANGELES, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



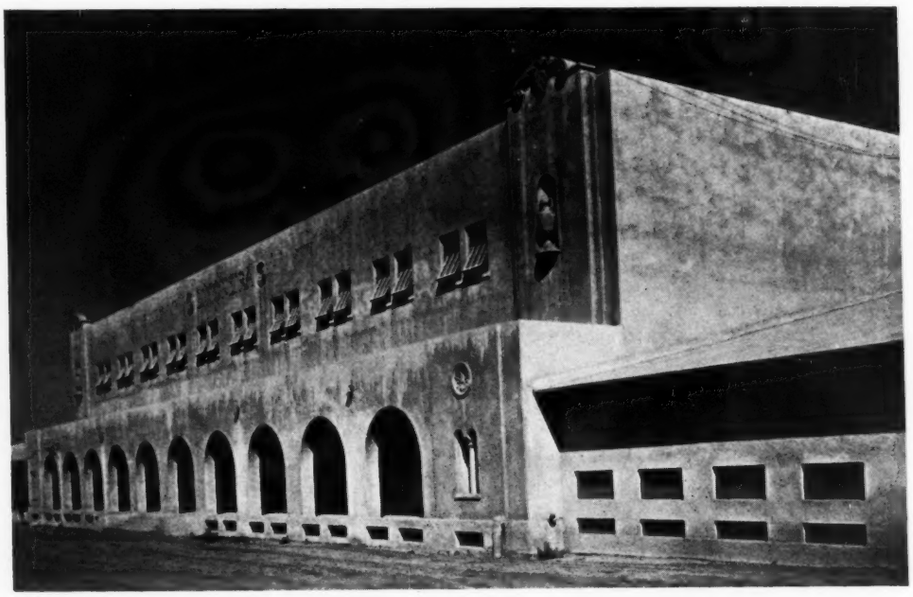
UNIV. OF MICH.

COMPETITION DESIGN,
SAINT JOHN'S EPISCOPAL CHURCH.
LOS ANGELES, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



FIRST METHODIST EPISCOPAL CHURCH,,
MONROVIA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

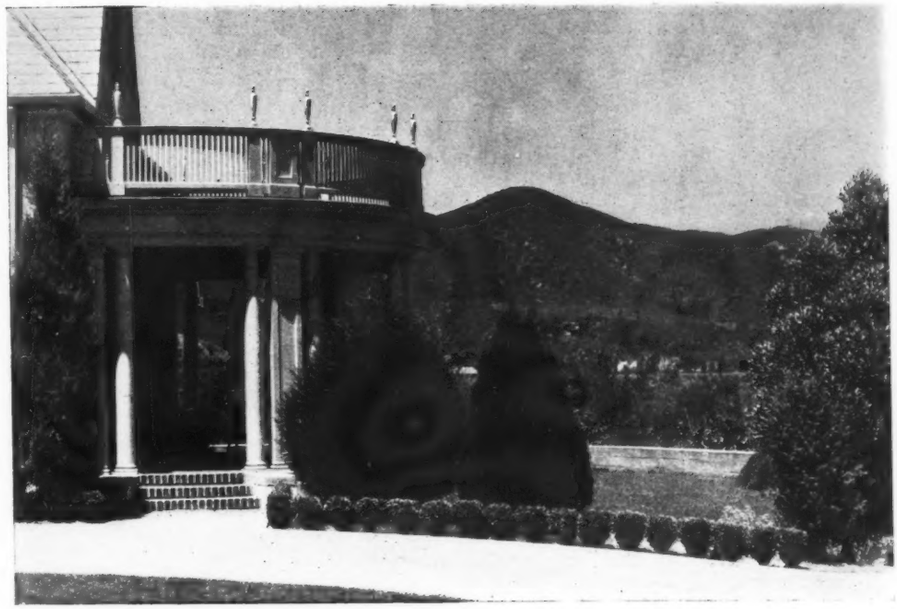
DEPARTMENT STORE BUILDING FOR
DR. E. O. PALMER,
HOLLYWOOD, CALIFORNIA.



PACKING HOUSE,
LIMONEIRA CITRUS ASSOCIATION,
SANTA PAULA, CALIFORNIA.

UNIV. OF MICH.

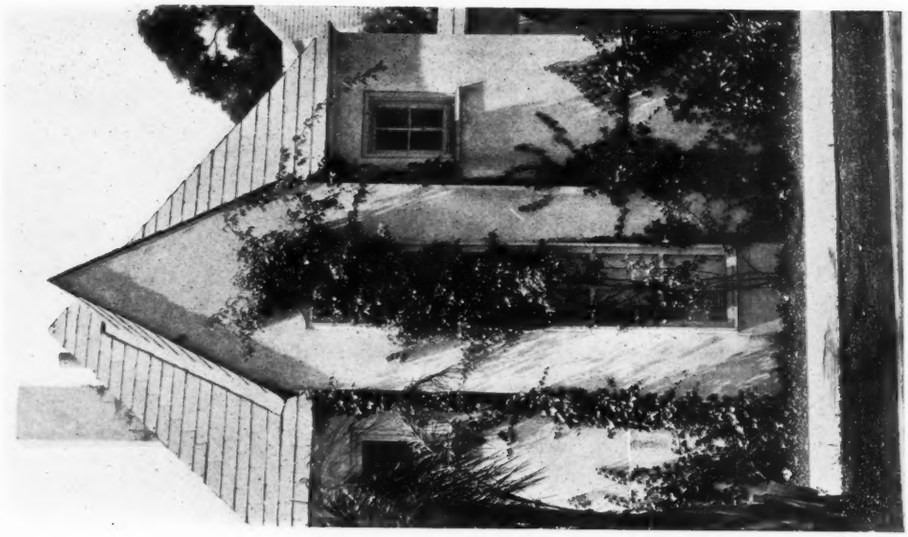
INDUSTRIAL BUILDINGS,
ALLISON & ALLISON, ARCHITECTS.



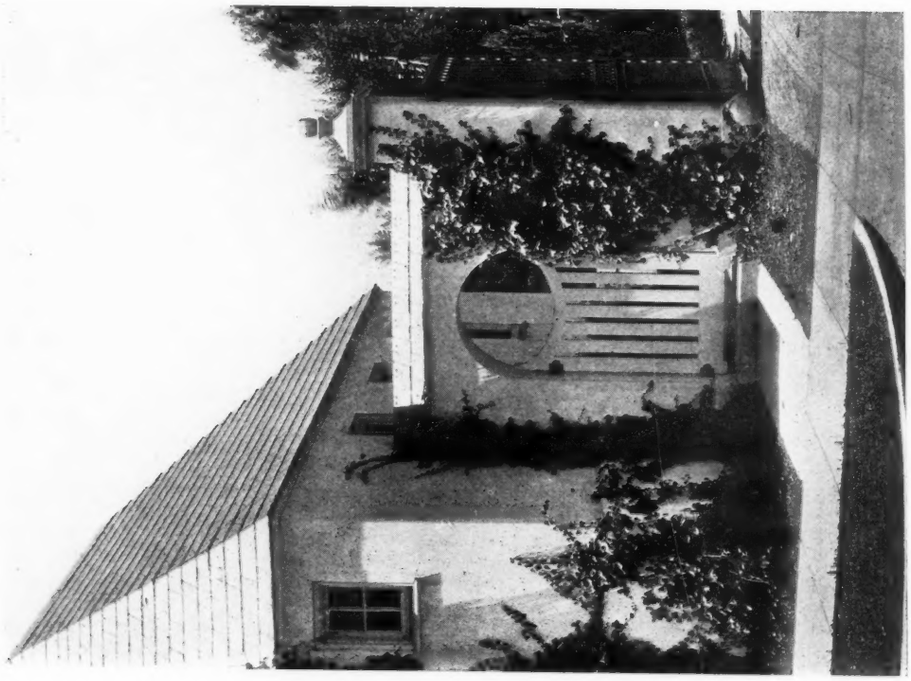
PORTICO, NORTH FRONT.

FRONT VIEW.

RESIDENCE OF MR. J. C. DANIELS,
PASADENA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



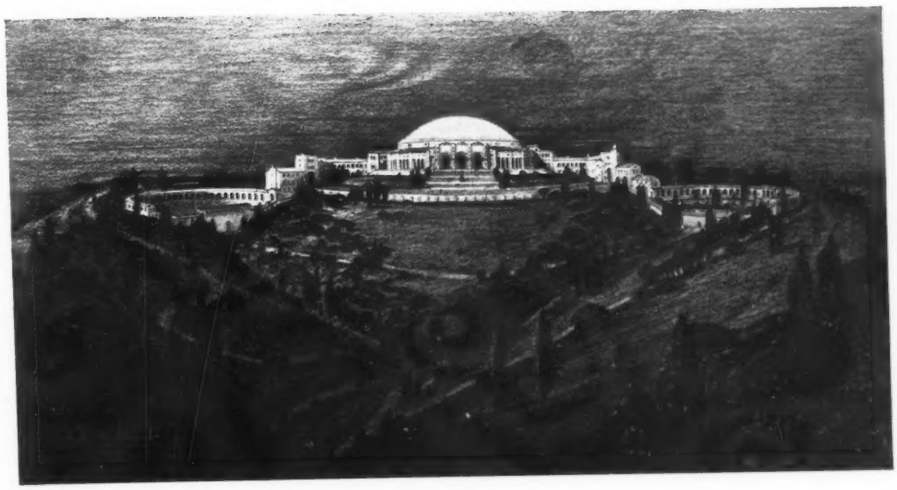
CORNER OF GARAGE.



GATEWAY.

MICH.

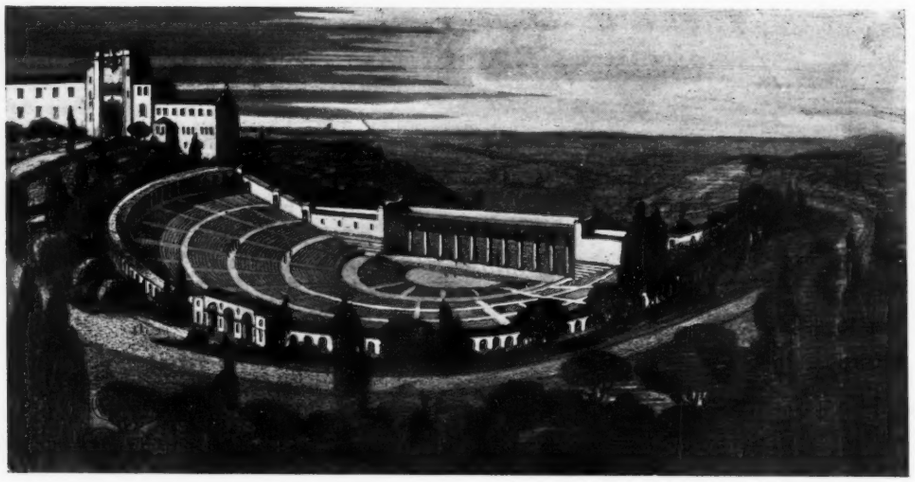
RESIDENCE OF MR. J. C. DANIELS,
PASADENA, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



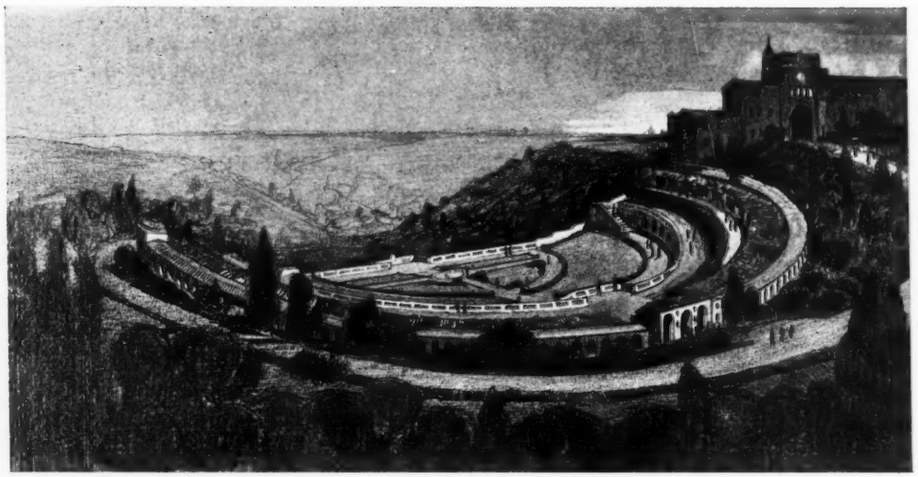
SKETCH, GENERAL VIEW.

SKETCH, AUDITORIUM ENTRANCE.

STUDIES FOR
THE CHAUTAUQUA OF THE PACIFIC,
LOS ANGELES, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.



SKETCH, OPEN AIR THEATER.



SKETCH, STUDY GARDEN.

LIBRARY OF MICH

STUDIES FOR
THE CHAUTAUQUA OF THE PACIFIC.
LOS ANGELES, CALIFORNIA.
ALLISON & ALLISON, ARCHITECTS.

COOKING CLASS ROOM

School Kitchens

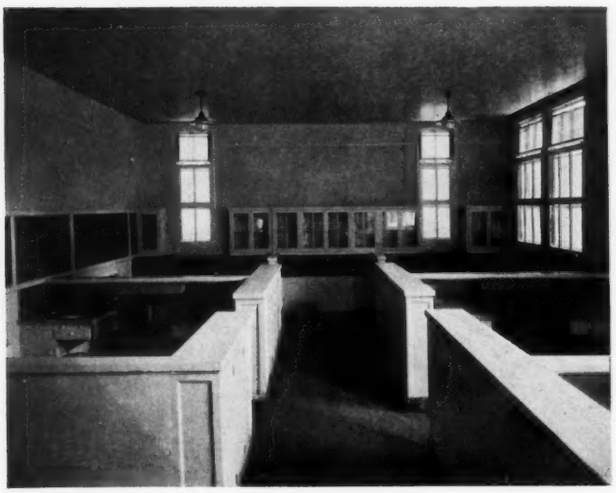
By Mary Robinson Thomas

There is so intimate a connection between the kitchen and the home that the story of the kitchens of the world would tell very clearly and truly that of the homes of the world. The mainstay and mainspring of comfort in life is the kitchen. The rise of the kitchen, from the outdoor arrangement of savagery to the modern completeness of the well-ordered home, is no more marked than the corresponding growth of the nations in home graces.

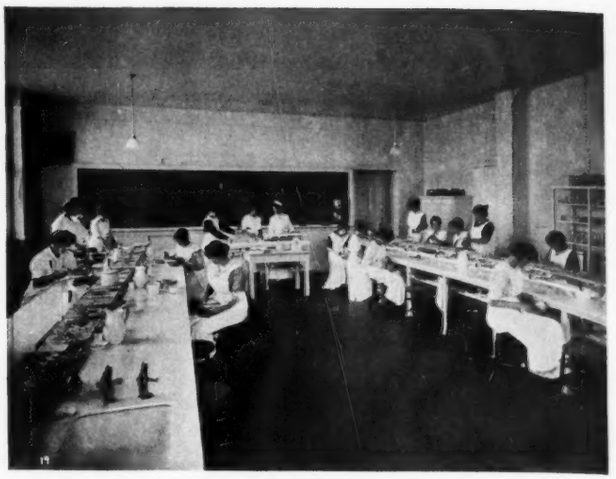
The inception of the school kitchen was brought about by the old law of demand and supply; the homemakers' demand for knowledge of not only the how, but the why created the supply of modern laboratories and forceful instructors which are found throughout the civilized world. Like all beginnings the first school kitchen was crude, but with the invention of mechanical devices and sanitary materials for construction it has kept up with the times and the present-day result of this evolution is a monument to scientific teaching and invention. It has been said that the highest modern civilization is shown not so much by costly monuments and works of art as by perfection of house conveniences.

Whether the home kitchen or the school kitchen is to be equipped the four fundamental and most important considerations are light, ventilation, open plumbing, and non-absorbent, washable table-tops, walls and floors. The portable equipment justifies careful consideration, too; working space for each pupil must be adequate as to table, cupboard, stove and sink, and all of these at the proper height for ease in execution. This latter point will vary according to the grade of work and age of pupil, but the other points should be adhered to for all grades and ages. The size of the class is governed by the demand for instruction and the facilities for accommodating. Most class-rooms are equipped for twenty or twenty-four students, but most teachers agree that the ideal class is sixteen students.

At first the arrangement of the working tables was the hollow square with the teacher's desk at an opening at one end. The progress of the work was watched by the teacher from the inside or courtyard of this square. Individual stoves were supplied for kettle cooking while the baking was accomplished by one large oven at the end of the room near the teacher's desk. One large sink was near the stove. One stove and one sink only made congestion inevitable and this proved a great disadvantage in efficiency. These were the experimental days so cheapness of equipment was too often the first consideration, so wood was used for nearly all



COOKING LABORATORY



COOKING CLASS

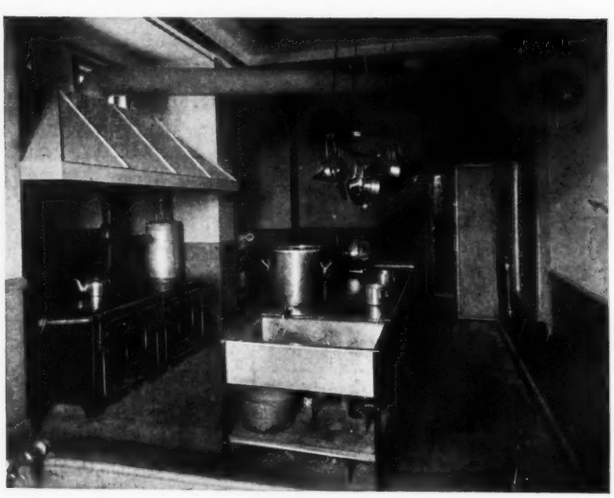
construction purposes. Usually the pupil worked separately and with very minute quantities. This dividing, sub-dividing and dividing again of a receipt did not give uniform results and did not teach either principle or process that could be taken home and applied to every day living. Unless a practical subject has a practical application to life it fails utterly in its purpose. A prune is a small thing in itself, but when it is divided into quarters or thirds it becomes too infinitesimal for use in practical or aesthetic cookery.

The transition from this stage to the next came very quickly and decisively. More large stoves were supplied, also sinks, and the tables either accommodated two or four pupils, or two long tables accompanying lockers and openings at each end supplanted the "hollow square" idea. Zinc was often used to cover the wooden table top and so, save the constant scrubbing necessary to keep it clean. The need of frequent demonstrations by the teacher proved that a model table for this purpose was a necessary adjunct. The group method was most often used, so, that at least, one-half of a recipe could be used by two or four students. These were steps in the right direction.

The next great change came more particularly in the materials used in construction and the more general use of gas and the introduction of electricity for cooking. One of the illustrations shows very clearly a high school class working in a very up-to-date kitchen. This kitchen is part of an equipment in a school for home-making, known as the Lux School of San Francisco, California. In this school not only cookery is taught but all the allied subjects.

Both individual and group methods were used and the subject took on an especially practical aspect because the well-cooked foods not only demonstrated sound teaching, but helped supply the needs of the cafeteria. Proper serving and the aesthetic value of good table manners were particularly emphasized.

Individual electric discs were installed and two large baking ovens. Sinks at the end of each side of these long tables (four in all) reduced the congestion, and a lavatory for hand-washing for each side of the room made cleanliness not only a possibility but a probability. The demonstration table faced the teacher's desk at the opposite end, and yet, in each instance, space was allowed for free passage back and forth. Vitrolite, a non-absorbent, acid and alkalie resisting substance which is easily kept white, clean, and shining, was used for the tops of these tables. Underneath this top was a small shelf of the same material and some nickel hooks, upon which each girl



CAFETERIA KITCHEN

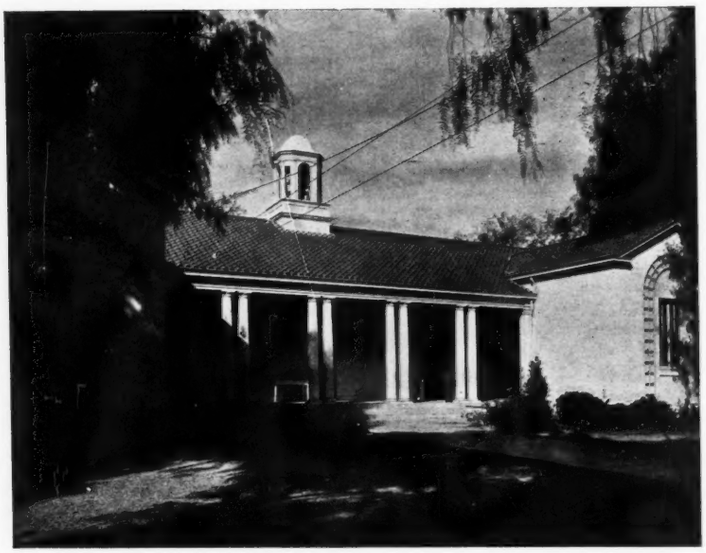
COOKING LABORATORY

kept her utensils. These open shelves made a quick inspection from the teacher's desk possible. Closed lockers are the ban of every home economics teacher's existence, because, it is an universal trait to close the door upon disorder. The teacher, whose ideas went into this installation believed and proved that order, system and thoroughness were better educational factors than uncreative routine work.

Another illustration shows the very latest idea in school kitchen architecture; the unit system. Here the room is divided into virtually five compartments, or cubicals, accommodating four pupils each. These miniature rooms are supplied with work-tables and lockers for four girls. The table tops are made of German stone in a buff color. Two small gas ranges supply boiling surfaces for four saucepans, an oven and broiler for each group of two. In each little room is a sink. In the center of the main room are the supply and demonstration tables. Adjoining this class kitchen is a practice kitchen, a pantry and store closet and dining room. The whole idea back of this equipment is to make the working conditions similar to the modern home kitchen and with this, goes the idea of using full sized recipes that will satisfy the average family, no matter whether the girl of twelve or the woman of thirty uses it. The Piedmont High School of Piedmont, California, is the proud possessor of this superior department.

Mothers, the world over, will agree that it is very easy for children to help in creating a dish and are usually very proud of such an achievement, but when the routine, mechanical work of cleaning up comes they avoid it, if possible. Mechanical devices such as the clothes washing machine, dish washing machine, vacuum cleaner and iron together with sanitary construction reduce the tediousness of every day work to a minimum so that time and energy are saved for wider achievements. If the Home Economic classes are learning these cardinal points, the whole world is the gainer!

ELECTRIC WASHER



GALLATIN DISTRICT SCHOOL,
LOS ANGELES CO., CALIF. ALLISON & ALLISON, Architects

Educational Value of School Architecture

By HORACE M. REBOK
Superintendent of Schools, Santa Monica, California

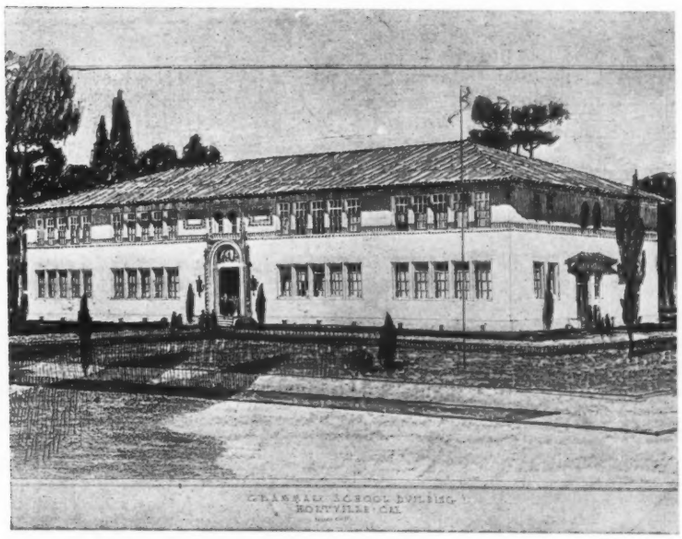
The people of California are spending money more freely today for school buildings and for the expansion of public education than ever before. The same may be true of most of the other states of the union and undoubtedly is true in many of them.

The tremendous significance of the doctrine, that whatever we would have appear in the nation's life, we must put into the people's schools, is today strongly impressed upon the public mind. We are beginning to realize this philosophy in a very vital way; and as a corollary, we are also beginning to see that whatever we would have appear in the personal life of the citizen, whatever we would have appear in the home life of the individual, and whatever we would have appear in the community life, we first must put into the life of the public schools.

School days are impressionable days in human life. The child shapes his career from both suggestion and interest, and we do not yet know whether heredity or environment is the most dominant factor in determining human careers.

Surround a child with good buildings, attractive landscape, good pictures, and he will cease to care for the bad. He will learn to love the true, the beautiful, and the good, when during these wonderful years of childhood he sees and hears and lives in the environment of the true, the beautiful, and the good. If the ideals of these sentiments are embodied in terms of brick and stone, and landscape, their interpretations cannot but be impressed upon the mind and heart of the child and become a part of his character. The value of good school environment has its fruition later in life when the school child has become a citizen. He will then want beauty in the streets, parks, and the public buildings of his city, and the poor or the bad in such matters of community life will not satisfy him. From the standpoint of the individual and from the standpoint of the community and the state, no investment in education can pay a higher dividend than the investment in sound methods, good architecture, beautiful environment, for from these things the citizenship of tomorrow will gather the ideals of the democracy which tomorrow's citizens will build. From the child's present environment he builds up bit by bit, his conception of the dignity and character of citizenship in our republic.

The public school buildings of the twentieth century should be expressive of our finest sentiments and attitudes toward our type of government which is represented by the schools of the people. Our public schools embody the very essence of our democracy. They are the foundations of our community and



GRADE SCHOOL, HOLTVILLE, IMPERIAL CO., CALIF.

ALLISON & ALLISON, Architects

state. Under our theory of government the state exists for the welfare of its children and the public school is both the heart and the model for the rest of our governmental institutions. In spirit and in interpretation the architecture of the public school should typify the liberal, generous, hopeful, idealistic attitudes of a modern state.

The public school concerns all of the people. Of all public buildings the school alone is directly associated with the daily life of the masses. In plan, design, and equipment, school buildings contribute to the welfare of all, and in these things every member of society has both personal and financial interest. No school should be built in the twentieth century that does not lend itself to the service of the whole community.

The school plant of any community at any time becomes at once a gauge of the community's interest and intelligence in education. The village school house, built on the box plan; poorly ventilated, uninteresting or offensive in design, with unkept school yard, barren of plant or verdure, is typical of the community that built the school plant. It has been generally true that the homes, and the streets, and the other public buildings of a community in which such a school house has been found, correspond in type and character to the unattractive and unkept school house. The development of interest and ideals in community life have made the repetition of such mistakes scarcely possible today. The school has been doing its work. The level of intelligence of the community has risen and community interest has quickened. The people generally, now approve only the best.

The State enjoins heavy obligations upon the public school in the teaching of morality, truth, justice, and patriotism. By legal mandate the State demands training of children for the best citizenship. With this objective in view, I hold it positively immoral to house its school children in homely, unkept buildings, or to assemble them daily on commonplace, neglected school grounds. How can a child, quick as he always is to sense injustice, be expected to embrace noble sentiments when his sight and other senses are daily offended by an example of community infidelity, insincerity, and niggardliness, as these moral qualities find expression in bad school architecture and in poorly kept school premises.

The child who comes to school from a well appointed home has the right to enter a school as good, at least, as the home from which he came. The child who comes from a neglected home, and is equally responsible for the future welfare of the State as is his more fortunate friend, has the right to enter the best school the community and state can produce. The school buildings of every community should be made temples of democracy. The lessons of community welfare exemplified in good streets, beautiful and well-kept playgrounds and parks, and beautiful and serviceable public buildings, should have their inspiration and inception in the environment of the school.

UNIVERSITY CLUB,
LOS ANGELES, CALIF.

ALLISON & ALLISON, ARCHITECTS

Honor Awards for Best Designed Buildings In Los Angeles

Honor awards for the best examples of architecture in 25 classified types of buildings, and best examples of group and city planning and landscape work, were a feature in connection with the exhibit held under the auspices of Southern California Chapter, American Institute of Architects, January 4 to 31, 1923, inclusive, at the gallery in the county museum at Exposition Park, Los Angeles. These awards were made only on work actually executed within the jurisdiction of the Chapter subsequent to the time of previous awards of honor. The various types of buildings are grouped in six sections as follows: Single dwellings, multiple dwellings, commercial buildings, semi-public and cultural buildings, school work and public work; three other sections comprise group planning, city or community planning and landscape work. A special award was given in many of the fine arts as distinguished from architecture.

The program of honor awards was arranged by the committee in charge of the exhibit, consisting of Edwin Bergstrom, chairman; Harwood Hewitt, David J. Witmer, H. C. Chambers, H. F. Withey, S. M. Spaulding and William Clarke.

Three leading architects of San Francisco comprised the jury of awards. They were: John Galen Howard, Ernest Coxhead and Arthur Brown, Jr.

The exhibit was not confined to drawings and pictures of executed work, but included also unexecuted work. The hanging committee, which determined the exhibits and was responsible for their proper framing, hanging and coherency as a unit when hung, was composed of the following architects: D. C. Allison, chairman; W. M. Clarke, H. C. Chambers, Pierpont Davis, W. J. Dodd, Robert Farquhar, Fitch Haskell, Harwood Hewitt, Myron Hunt, Elmer Grey, Reginald Johnson, Templeton Johnson, Robert Murray, E. C. Neff, S. M. Spaulding, Winsor Soule, A. C. Zimmerman.

Following is the circular on honor awards as prepared by the committee in charge of the exhibit of which Edwin Bergstrom is chairman:

The Southern California Chapter of the American Institute of Architects, desiring to encourage the appreciation of architecture and the fine arts in Southern California by extending its recognition of exceptional merit in any executed work in those arts, does hereby establish a series of awards to those by whose ability, skill and co-operation such works were created.

The conditions governing these awards are hereby fixed as follows:

CONDITION 1. These awards shall be known as the *"Honor awards of the Southern Cali-*

UNIVERSITY CLUB,
LOS ANGELES, CALIF.

ALLISON & ALLISON, ARCHITECTS

fornia Chapter of the American Institute of Architects in architecture and fine arts."

CONDITION 2. The awards shall be of two divisions: *Classified Awards,* made under the regular sections fixed in Conditions Four and Five, hereof, and *Special Awards,* made in accordance with Condition Eight hereof.

CONDITION 3. Awards of either division shall be made only for work actually executed within the jurisdiction of the Southern California Chapter of the American Institute of Architects subsequent to the time of previous Awards of Honor.

CONDITION 4. *Classified Awards,* provided for in Condition Two, shall be made for exceptional architectural merit in the sections and classes fixed in this Condition Four, and shall be confined to the work of members of the Southern California Chapter of the American Institute of Architects.

Section I—DWELLINGS, SINGLE:

Class A—Single detached dwellings, 6 rooms and under.
Awarded to Henry F. Withey.
Awarded to Witmer & Watson.

Class B—Single detached dwellings, 7 rooms to 12.
Awarded to Soule, Murphy & Hastings.
Awarded to Harwood Hewitt.

Class C—Single detached dwellings, 13 rooms and over.
Awarded to Pierpont & Walter S. Davis.
Awarded to Harwood Hewitt.

Section II—DWELLINGS, MULTIPLE:

Class A—Multiple dwellings, individual kitchens, 4 apts. and under.
No award.

Class B—Multiple dwellings, individual kitchens, 5 apts. and over.
No award.

Class C—Multiple dwellings, hotel type, city.
No award.

Class D—Multiple dwellings, hotel type, country.
No award.

Class E—Multiple dwellings, club type, city.
Awarded to Allison & Allison.

Class F—Multiple dwellings, club type, country.
Awarded to Myron Hunt & H. C. Chambers.
Awarded to Edwin Bergstrom.

Section III—COMMERCIAL BUILDINGS:

Class A—Mercantile buildings, 4 stories and under.
Awarded to Henry F. Withey.

Class B—Mercantile buildings, 5 stories and over.
No award.

Class C—Industrial buildings.
Awarded to Allison & Allison.

Class D—Commercial buildings, not included in Classes "A", "B" or "C".
Awarded to Myron Hunt & H. C. Chambers.
Awarded to Morgan, Walls & Morgan.

Section IV—SEMI-PUBLIC AND CULTURAL BUILDINGS:

Class A—Religious.
No award.

Class B—Libraries, Academies, Colleges, Universities, etc.
Awarded to Allison & Allison.
Awarded to Myron Hunt & H. C. Chambers.

Class C—Hospitals, Detention Homes, etc.
No award.

Class D—Semi-Public and Cultural Buildings, not included in Classes "A", "B" or "C".
No award.

Section V—SCHOOL WORK (Built by civic taxes or bonds):

Class A—High Schools.
Awarded to Allison & Allison.

Class B—Intermediate Schools and under, 8 class rooms and under.
Awarded to Allison & Allison.

Class C—Intermediate Schools and under, 9 class rooms and over.
No award.

Section VI—PUBLIC WORK (Built by civic taxes or bonds):
No award.

CONDITION 5. *Additional Classified Awards* provided for in Condition Two, shall be made for exceptional merit in the sections and classes fixed in this Condition Five, viz:

Section VII—GROUP PLANNING:
No award.

Section VIII—CITY OR COMMUNITY PLANNING:
No award.

Section IX—LANDSCAPE WORK:
Class A—Residential sub-divisions, functioning as part of the civic plan or regional development.
No award.
Class B—Parks, functioning as part of civic development.
No award.
Class C—Private estates of less than one acre.
No award.
Class D—Private estates of more than one acre.
Awarded to Paul G. Thiene, Landscape Architect.
Awarded to Johnson, Kaufmann & Coate, Architects
Class E—Landscape work not included in Classes "A", "B", "C", or "D."
No award.

Section X—Any of the Fine Arts as distinguished from architecture.
Awarded to Wm. M. Clarke.

CONDITION 6. Only one award in any year shall be made in each class or unclassified section, unless, in the opinion of the Jury of Award, the educational value of these awards could be better presented by more than one such award; in which case the Jury may make not to exceed three awards in any class or unclassified section in any year.

CONDITION 7. The manner of presenting the work to the Jury of Award shall be determined by the Executive Committee of the Chapter; however, nominations for awards in any of the sections and classes of *Condition Five* may be made to the Jury in writing by any person.

CONDITION 8. A Special Award of *"Distinguished Honor in Fine Arts"* may be made for any executed work of pre-eminent merit in any of the fine arts to the author thereof. Not more than one such award shall be made in any one of the fine arts in any year. A classified award shall not bar a special award if the Jury shall so find. *A Special Award of "Distinguished Honor in Architecture"* may be made to the architect for any executed work of pre-eminent architectural merit if the Jury shall find sufficient merit to warrant such distinction above all other work of all classes. Not more than one such award shall be made in architecture in any one year. A classified award shall not bar a special award if the Jury so find.

CONDITION 9. The awards shall be made by a competent Jury of three architects, members of the American Institute of Architects, who are not members of this Chapter. This Jury may, in considering awards in the city or community planning or landscape classifications, wherein the architectural problems is not predominant, call in special judges from the other professions to assist in making its award in such cases. The Jury shall be appointed by the Executive Committee of the Southern California Chapter.

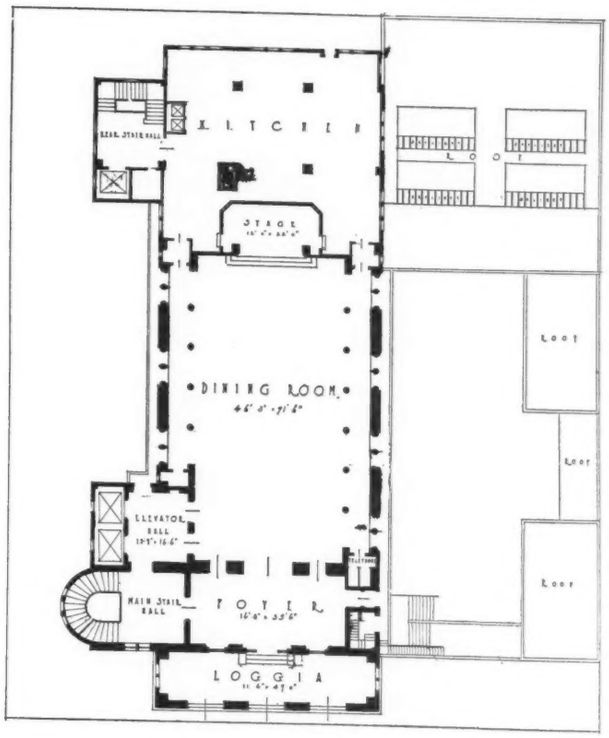
CONDITION 10. As one of the paramount purposes for which the awards are to be made is that of encouraging the creation of better architecture of our members and a finer art, awards must be rigidly confined to merit as shown; thus creating year by year a visible history of progress of the arts of California. An Honor Award must not be made unless in the opinion of the Jury the work is of sufficient merit to be honored and so set apart, and when an award cannot be made the Jury shall state in its report either that no exhibit was entered in the classification or that, if entered sufficient merit had not been shown. The Jury shall be ever impressed that it is its duty and obligation to thus forward the educational value of the awards.

CONDITION 11. The Jury in making its awards must consider the work in its entirety, though this shall not be construed to prevent an award being made upon any detail of such work. The Jury shall, in making its decision as to merit, consider whether the work is an adequate solution of the problem involved. The Jury shall have the right and power to require the submission of additional information upon any exhibit submitted to it, and shall assure itself that the work is actually executed before making an award.

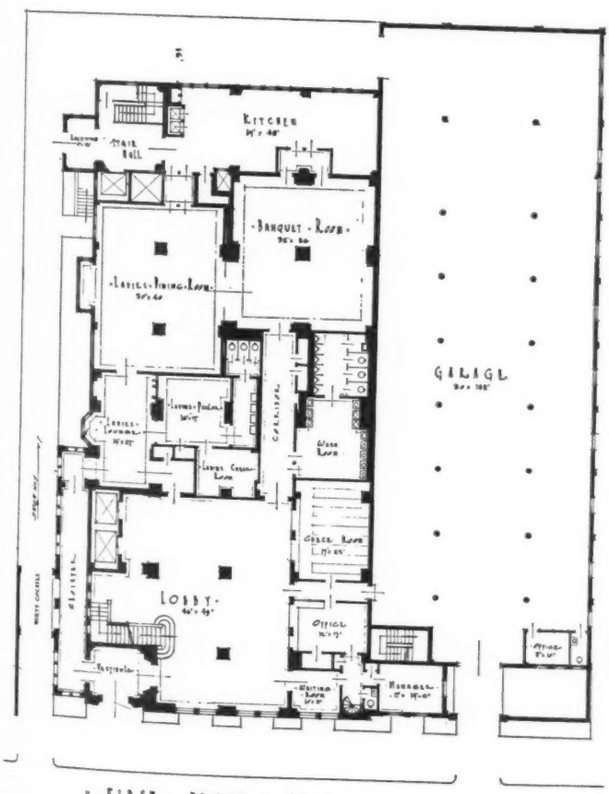
CONDITION 12. A unanimous vote of the Jury shall be necessary to make an award.

CONDITION 13. The Jury shall report in writing to the Executive Committee of the Chapter its findings, conclusions and recommendations, and the Executive Committee shall thereupon approve and accept the report, make the awards and publish said report as a part of the records of this Chapter.

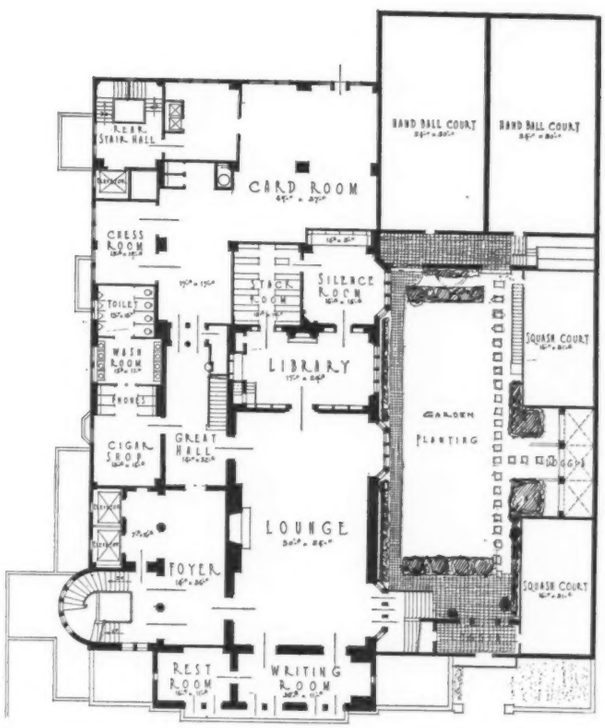
CONDITION 14. The Chapter, under its seal and the signatures of its officers, will present, as evidence of the Classified Awards, *"Certificates of Honor,"* and as evidence of the Special Awards, *"Certificates of Distinguished Honor in Architecture"* or *"Certificate of Distinguished Honor in the Fine Arts"* as the case may be, properly setting forth the appreciation of the Chapter for the meritorious work done.



THIRD FLOOR PLAN
UNIVERSITY CLUB

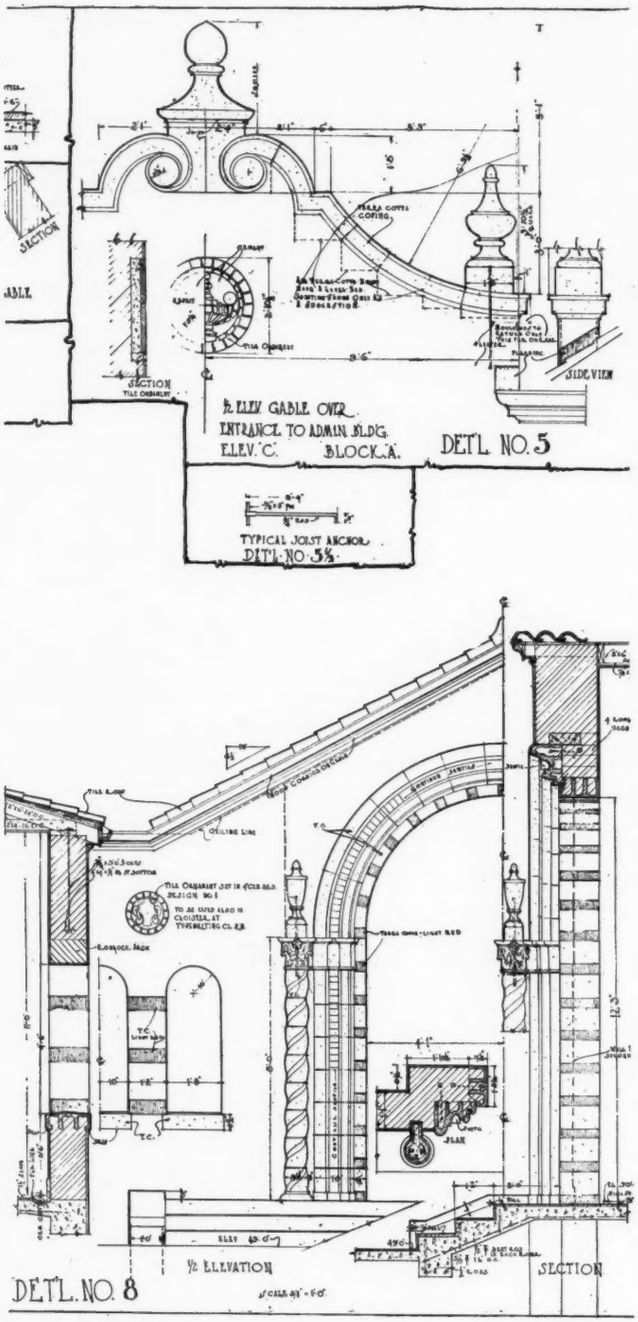


FIRST FLOOR PLAN
UNIVERSITY CLUB



SECOND FLOOR PLAN
UNIVERSITY CLUB

UNIVERSITY CLUB,
LOS ANGELES, CALIFORNIA
ALLISON AND ALLISON, Architects



UNION HIGH SCHOOL,
PALO ALTO, CALIF. ALLISON & ALLISON, Architects

GROWTH OF A WESTERN METROPOLIS

By MORRIS M. RATHBUN

If the casual traveler were asked for his deepest impression concerning Los Angeles, he doubtless would reply in the stereotyped phrase that its sunshine, fruits and flowers form the outstanding triumvirate. If the alert resident were asked the same question, he would reply in effect that the industrial development of the city during the past few years is the outstanding feature.

The industrial development of the city, beginning in 1914, did not come by chance, but was the logical outcome of well organized community effort. This effort was made deliberately after a careful survey of the city as a whole, which indicated that although offering exceptional advantages in manufacturing, this phase of community life was sub-normal. Effort was concentrated through the Industrial Department of the Chamber of Commerce. An educational campaign was waged throughout the country. Manufacturers were told of the amount of their commodities finding a market in the city and its environs and of the total production. There was no indiscriminate effort made to promote industry nor were false hopes held out to industrial enterprises. Encouragement was given only to those which would fill a well defined want and which reasonably could expect to find a ready local market for their output.

Amazing results followed, when the ending of the world war in 1918 permitted industry to resume its normal functioning. With a population increasing at the rate of 100,000 a year there was room not only for many new industries, but for the expansion of those already existing. The new population arrived in a steady stream and demanded service and this demand was met by the established industries and by the new ones.

The year 1922 is indicative of the past four years in Los Angeles' industrial development. More than 500 new industries were added within the Los Angeles industrial district. Nearly $7,000,000 of the $120,000,000 building program for the year went into factory buildings and extensions. The variety of new industries was almost equal to the number, although in established and demonstrated lines such as petroleum products, food products, wearing apparel, auto accessories, furniture, clay products, motion pictures and containers, the percentage of increase was large.

It was but recently that Los Angeles' leading industry was classified as an industry. This is the manufacture of motion pictures, the annual output of which amounts to $140,000,000 in value. This city is the capital of the motion picture world and produces approximately 75 per cent of all screen productions manufactured in the country. This industry is so closely allied with the arts that it was only considerable persuasion that the United States recognized it as having a pert in the industrial life of the community.

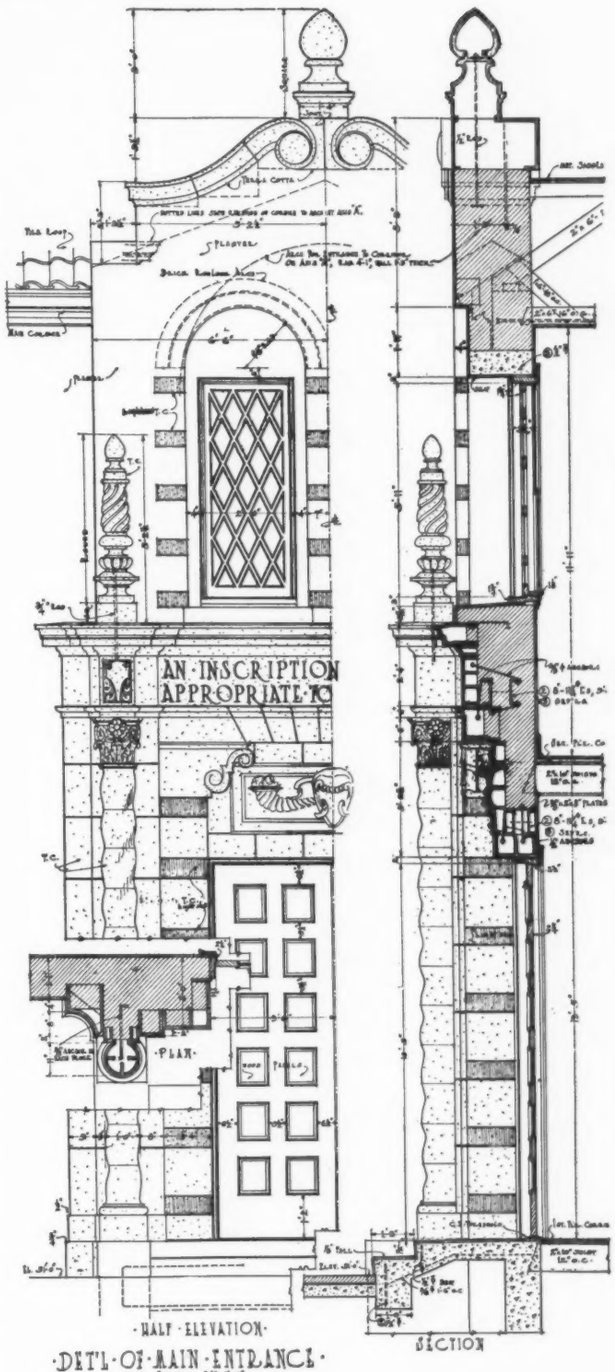
It is a unique industry in that the raw material utilized in a million dollar screen production can be encased in an ordinary soap box. The raw product utilized consists of a few

rolls of celluloid film ,which, if produced by a leading star, has a potential value of several million. The money supporting this industry is gathered from all corners of the globe in small amounts. There are more than fifty studios in and around Los Angeles producing pictures, and an average of one hundred photoplays are under way continuously. Some of the studios are equipped to take pictures as apartment houses are for tenants. The producer may rent all essentials except his actors and cameramen. The motion pictures are the romantic side of Los Angeles industry. In fact, the glamor of the pictures is so great that the casual observer does not realize that petroleum products are a close second in value, with more than $100,000,000 in output annually and that the food products, if confectionery, canned fish and fruit and vegetables are included, are a formidable rival of the pictures in value.

The industrial census of the government in 1914 gave Los Angeles 26th place in cities of the United States. The population census gave it 10th place. It is believed that intensive activity of the past few years has brought Los Angeles' industrial rank commensurate with its population rank and that it is now functioning normally as a community so far as industry is concerned.

In the educational campaign for industry, it was pointed out by the Chamber of Commerce that peculiar advantages were offered by the city to manufacturers. Cheap hydro-electric power, unlimited water, any quantity of fuel oil, fine transportation facilities by sea and land, the salubrious climate, reasonably priced industrial sites and open shop labor conditions combine in attractive array. There is also the added lure to the manufacturer of a steadily increasing population not only in the city but throughout the distributing area.

Those familiar with the industrial development marvel at the progress made, but the earnest students in research point out that hardly a beginning has been made. They point out the $298,000,000 annual mineral production of California as an evidence of the raw material supply. This total is from the 51 minerals now being taken from the ground. The encouraging part for Los Angeles is that the seven southern counties of the state contain the vast majority of the mineral deposits, so that future development of raw materials in this section is certain to produce industries adjacent to the source of supply. They point out the further fact that while more than fifty raw products now are being taken from mother earth, in Southern California, there remain some 25 commercial raw products which have not yet been utilized but which eventually will be in the ordinary progress of humanity.



UNION HIGH SCHOOL,
PALO ALTO, CALIF. ALLISON & ALLISON, Architects

Steadily increasing population, introduction of labor saving methods, ever widening markets, overseas, and unlimited raw materials are held as a basis for predicting that Los Angeles industry is destined to become as famous as have its sunshine, fruits and flowers.

SAN FRANCISCO CHAPTER AMERICAN INSTITUTE OF ARCHITECTS

MONTHLY BULLETIN

OFFICERS

Geo. W. Kelham, President.
Henry H. Meyers, Vice-President.
J. S. Fairweather, Secretary-Treasurer.

DIRECTORS

William Mooser, three years.
J. H. Blohme, three years.
A. J. Evers, two years.
Harris Allen, two years.
S. Schnaittacher, one year.
Morris M. Bruce, one year.

NEXT MEETING

The next meeting will be held Thursday evening, February 15th, 1923, at the Architectural Club Rooms, 77 O'Farrell Street, at 6:30 p. m. and will be preceded by a Director's Meeting at 5:30 p. m.

JANUARY MEETING

The Directors and Regular meeting of the San Francisco Chapter of the A. I. A. was held Thursday evening in the Architectural Club Rooms, 77 O'Farrell Street. The meeting was called to order by President Geo. W. Kelham. The following members were present:

Morris M. Bruce, Geo. W. Kelham, William Mooser, H. H. Meyers, S. Schnaittacher, H. E. Burnett, E. B. Hurt, Chester Miller, W. O. Raiguel, W. J. Wilkinson, A. J. Evers, W. B. Faville, Wm. Newman, H. Schmidt, J. S. Fairweather.

OLD BUSINESS

It was the consensus of opinion of the board that the Circular of Information be made more condensed in form and that each director report his opinion at the next meeting.

The committee duly appointed to draft the new State Housing act made a study of the three existing housing laws, made a new draft which closely follows the act of 1921 and reported back to the full committee. After a general discussion January 10, 1923, a few minor changes were made and the bill sent to Sacramento to be taken up by the legislature now in session.

COMPETITIONS

The committee on competition begs leave to report that a limited competition for a Golf Club for the Olympic Club had been approved.

An Interesting Competition

Mr. Kelham reported an interesting competition held in New York City, for a building for the Johns-Manville Company, which is quite an economic way of competing when one stops to consider that the cost to the architectural profession for a competition such as the Chicago Tribune building with two hundred and forty competitors was anywhere from $300,000.00 to $400,000.00.

Don Barber, Wells W. Bosworth, Carrere & Hastings, Cross & Cross, Delano & Aldrich, Cass Gilbert, Helmle & Corbett, Robert D. Kohn, Ludlow & Peabody, McKenzie, Voorhees & Gmelin, McKim, Meade & White, Benjamine W. Morris, Kenneth M. Murchison, L. F. Pilcher, John Russell Pope, George B. Post & Sons, James Gamble Rogers, Starrett & Van Vleck, Trowbridge & Livingston, D. Everett Waid, Warren & Wetmore and York & Sawyer, were invited to a lucheon given by T. F. Manville, and each one drew an envelope with the words "you won" enclosed in one. The building was won by Ludlow & Peabody.

The Small House

The Department of Commerce has gotten out a booklet entitled "Recommended minimum requirements for small dwelling construction", which can be had by a request addressed to the Superintendent of Documents, Government Printing Office, Washington, D. C., and enclosing cash or money order for 15 cents per copy.

There being no further business the meeting adjourned.

J. S. Fairweather, Secretary.

To the Members of the San Francisco Chapter of the A. I. A.:

According to the By-laws, privileged communications upon the desirability of the following applicant to membership in the San Francisco Chapter of the American Institute of Architects is requested.

Every such communication shall be signed and objections must be accompanied by reasons therefor.

Applicant: O. R. Thayer, 110 Sutter Street, San Francisco.

November 17, 1922.

Mr. John S. Drum, President,
Board of Trustees, War Memorial Committee,
Mercantile Trust Co.,
San Francisco, Calif.
Dear Sir:

At a meeting of this Chapter held yesterday, request was made to the Board of Directors for information regarding the proposed War Memorial Buildings.

At the time, as you will recall, our Committee last met with you, we were informed that we would be notified before you were ready to take up this question for definite action.

Since this is a matter of the greatest public concern, insofar as the architecture is concerned, we again take the liberty of offering the services of this Chapter in any way that may be helpful to your Committee, and refer to our former communication sent to you on June 1921; a copy of which is enclosed.

We feel that where, as in this case, work steps outside the bounds of private ownership, our experience in the matter of the architectural problem and the selection of an Architect cannot but be of value to you.

If you are able at this time to give us any information regarding the project it will be much appreciated.

Very truly yours,
George W. Kelham,
President.

December 20, 1922.

Mr. George W. Kelham, President,
The American Institute of Architects,
San Francisco Chapter,
1001 Balboa Building,
San Francisco.
Dear Sir:

At a meeting of the War Memorial Committee a few days ago your letter of November 27 was read and the Committee desired me to express to the Chapter its appreciation of the co-operation that your organization has given, and to say that the following Committee, made up almost entirely of members of the Institute, has been selected as an Architectural Advisory Committee to consult with the Building Committee of the War Memorial Committee in matters relating to the War Memorial buildings:

Bernard Maybeck, chairman; Willis Polk, Arthur Brown Jr., Ernest Coxhead, John Galen Howard, J. W. Reid Jr., G. Albert Lansburgh and F. C. Meyer.

Very truly yours,
(Signed) John S. Drum.

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REPORT OF THE SECRETARY OF THE WASHINGTON STATE CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS

The Secretary reports that the activities of the Executive Committee have been greatly diversified during the past year and that the members of the Executive Committee have devoted practically two weeks of their time to Chapter affairs, thus making it possible for the Chapter at its regular monthly meetings to devote much more time to subjects of greater interest than the routine business which must be taken care of.

Among the activities which have received their attention, the following list will give some conception of the things which have absorbed Chapter interest during the past year:

1. The Aberdeen Elks' Club Competition.

2. Instituted a Special Chapter Fund at the suggestion of Mr. Albertson, and through the efficient work of a committee headed by Mr. Cote, this idea is proving to be a great success in the providing of funds much needed for activities which formerly have been cramped for the lack of money.

3. Aided the Parent-Teacher Association of the state in the establishment of a model School Building Code.

4. Upheld the report of the Building Code Commission relating to a special ordinance which was eventually passed to permit the construction of a building not in accord with the Code and thus going on record as a Chapter against changes in the Code.

5. Reviewed the competition for the Elks' Building in Spokane and refused the endorsement of the competition because it was not in accord with the Institute Code on competition.

6. Studied the problem of newspaper publicity for architects and held a very helpful meeting with the newspaper men as guests.

7. Held a meeting with Robert Proctor and Mr. Fowler of the Building Department to assist in maintaining a friendly relation between the Chapter and the office of Mr. Proctor.

8. Requested that the Tacoma Hotel Association follow the principle that a Tacoma architect be engaged for their project.

9. The Executive Committee was instrumental in establishing a proper competition program for the Seattle Elks' proposed building. This program which has been accepted by the Building Committee of the Elks, is not yet approved by the Lodge at large.

10. Helped to prevent the proposed cut in the personnel of the Building Department by interviews with Mr. Proctor, the superintendent, and by letters to the Council.

11. Took active interest in the work of the Zoning Commission providing a review of certain portions of the zoning ordinance through our efficient Chapter Committee on Ordinances, headed by Mr. Siebrand.

12. Offered the assistance of the Chapter to the Association of Building Construction.

13. Provided Chapter membership in the National Council of Architects' Registration Boards.

14. Instigated the move which was finally instrumental in securing the nomination and election of Mr. Faville, the first Pacific Coast president of the Institute.

15. Through the Civic Design Committee of the Chapter sought the providing of spaces for future architectural and sculptural groups for the proposed Montlake bridge.

16. Through the Publicity Committee provided a campaign of publicity for Chapter members through window displays, which campaign is now under way.

17. Asked the City Council that it either abolish the office of City Architect or, if maintaining the office, make the City Architect a member of the Board of Public Works.

18. Among the speakers of the year were Dean Stephen I. Miller of the University and Mr. Blackwell, the new City Engineer.

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REVIEW OF TRADE LITERATURE

SELLING ARGUMENTS FOR TIN ROOFING

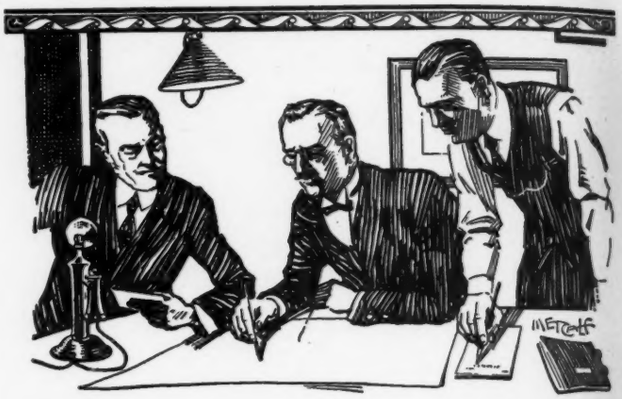
An interesting book of 80 pages containing over 100 illustrations and diagrams of various types of tin roofs showing their ready adaptation of different types of architecture. Among the Chapter titles are the following: "Information for the Architect, How a Tin Roof Should be Laid, How Roofing Tin Should be Made, Roofing Tin Tables for Estimating," etc. Special attention is given to the longlivity of tin roofs and several buildings are shown where the original roof is still in good condition after over a century of exposure to the elements. Another chapter is devoted to showing the reduction of fire hazard where tin roofing is used. The book is well bound in a heavy cover and will prove a valuable addition to the architects or builders working library. The N. & G. Taylor Company, Philadelphia, Penna.

WIRE GLASS

A set of books descriptive of the advantages of wire glass will be sent upon request by the Mississippi Wire Glass Company. Among them are "Why Wire Glass Should be Used for Fire and Breakage Protection, Maze Glass, Efficiency of Wire Glass Windows, Pentecor, The Proper Glass for Factories, Handbook of Various Sizes and Types of Wire Glass and a 90-page book the Earthquake and Fire of 1906, in San Francisco." This book concerns the fire resistance of building materials tested in San Francisco in 1906 and covers in detail the opinions, criticisms and comparisons expressed in letters and interviews by men whose experience and observations warrant consideration. The effect of the fire on the various materials is graphically shown in a number of illustrations.

PORTLAND CEMENT STUCCO

This book has been prepared especially for architects and builders. In addition to the many photographic illustrations of stucco-finished residences and of various types of finishes possible with stucco, it contains instructions recommended for use in the application of this material and drawing of typical construction details for stucco coverings on various types of buildings. Portland Cement Association, Chicago, Ill.



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THE BUILDING REVIEW

VOL. XXIII MARCH, 1923 No. 3

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Advertising Manager, SIDNEY J. WOLF

Published Monthly by the Building Review Company,
50 Main Street, San Francisco, California
Douglas Building Los Angeles, California

Address All Communications to San Francisco

Yearly subscription—United States, $2.50—foreign, $3.00. Single copies, 25 cents.

Entered as second-class matter in the San Francisco Postoffice under the Act of August 24, 1912. Previously entered as "The Architect."

The editors will be pleased to consider contributions of interest to the Industry. When payment of same is desired, this fact should be stated.

News stands and dealers supplied through San Francisco News Co., San Francisco, Calif., or American News Co., New York, N. Y.

EDITOR'S BOOK SHELF

*The Students' Edition of the Georgian Period**

THE original collection of plates known as "The Georgian Period" is sufficiently well known. An explanation for the present reprint of a portion of that work is best given in the words of the preface:

"The Georgian Period, in its years of existence, has become the Standard work of reference in its field. From its inception, the demand for it has been steadily increasing and it has passed through eight large editions. To this book we may accredit the awakening of our interest in the buildings left by our forefathers, and it is today the only record we have of many structures that have been destroyed since its publication. To the architect and student it has been a source of knowledge and inspiration.

Shortly after the publication it became evident that, however invaluable the work might be, it would not fulfill its mission unless it could be placed in the hands of all who needed it. The large size of the complete work and consequently its cost, made it impossible for many to secure it. To remedy this condition, after consideration, it was decided to make a careful selection of plates from the complete work and publish them as a Students' Edition. While this would not take the place of the complete work it would, however, place before the student, the draftsman and the young architect a source of inspiration that otherwise he would not have.

"With these ideas in mind the Students' Edition was conceived and the selection of plates was left in the hands of the Editor of the larger work, Prof. William Rotch Ware . . . ."

These one hundred plates, mostly of measured drawings, constitute an excellent working library of a certain style of architecture popularly known as "Colonial" and recently acclaimed as "American" or "Early American". None of these titles is accurate. With this edition is included an interesting paper, originally a thesis written by a Columbia graduate, Olof Cervin, which is a comprehensive survey of the building activities within the English Provinces of America during the 17th, 18th, and part of the 19th centuries.

The manner in which the best of our early builders modified the details of their former homes in the old country to suit the materials and needs of the new, is clearly indicated herein. There is a country-wide, apparently insatiable, demand for homes of this type; and since many of these are pitifully crude in both mass and detail, the publication of such a portfolio is timely and welcome. It is devoutly to be hoped that wide circulation and careful study of these refined and charming details will bring about a truer interpretation of the Georgian-Colonial-American house.

*The Students' Edition of the Georgian Period, U.P.C. Book Company, New York City.

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